ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
3033 N. Central Ave. ¦ Phoenix, AZ 85012-2809-33 ¦ Phone: (602) 207-2338

AIR QUALITY CONTROL GENERAL PERMIT

(As required by Title 49, Chapter 3, Article 2, Section 49-426, Arizona Revised Statutes)

for

Crushing and Screening Plants

This air quality control general permit does not relieve applicant of responsibility for meeting all air pollution regulations

THIS GENERAL PERMIT ISSUED SUBJECT TO THE FOLLOWING **Conditions contained in Attachments "A", "B", and "C".**

ADEQ GENERAL PERMIT NUMBER _____ PERMIT CLASS ***II*** EXPIRATION DATE _____

PERMIT ISSUED THIS _____ DAY OF _____

Nancy C. Wrona, Director, Air Quality Division
SIGNATURE TITLE

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GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

INTRODUCTION

Owners/operators of crushing and screening plants may obtain coverage under this General Permit in lieu of an individual permit. Such parties shall do so by obtaining an individual Authorization To Operate (ATO) for each crusher, screen, lime silo, air classifier and internal combustion engine (except for those engines which are integrated into a crusher, screen or conveyor) which will attest to their formal agreement to abide by all conditions contained herein.

Material permit conditions are indicated by a double underline and italics pursuant to A.A.C. R18-2-331.

Permittees covered under this General Permit may operate any amount of batch drop operations, feed hoppers, crushers, screens, lime, stackers, transfer points and limes silos so long as the total controlled emissions of Particulate Matter with an aerodynamic diameter less than 10 microns (PM_{10}) from the facility do not exceed 13.64 tons per year (TPY).

Similarly, Permittees covered under this General Permit may operate as many internal combustion engines powered by natural gas, gasoline, liquified petroleum gas or diesel fuel so long as the cumulative horsepower of the engines does not exceed 1400 horsepower and the Oxides of Nitrogen (NO_x) emissions do not exceed 90 TPY.

Finally, all Permittees who are granted coverage under this General Permit will agree to limit their operating hours to no more than 16 hours per day, and will be required to maintain spray bars or similar control on all crushers, screens and transfer points, and water trucks, sprinklers or similar control on the haul roads and storage piles.

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ATTACHMENT "A"
GENERAL PROVISIONS

I. GENERAL PERMIT EXPIRATION AND RENEWAL

[A.R.S. § 49-426(F), A.A.C. R18-2-306(A)(1), -505, -510]

A. This General Permit is valid for a period of five years from the date of issuance of the General Permit. The Director of ADEQ (Director) shall review and may renew this General Permit every five years from its date of issuance. All Permittee's Authorizations to Operate shall coincide with the term of this General Permit, regardless of when the individual authorization began during this five year period. The Director may require a Permittee authorized to operate under this General Permit to apply for and obtain an individual permit at any time if the source is not in compliance with the terms and conditions of this General Permit.

B. At the time that the public notice is required, pursuant to issuance of the proposed General Permit renewal, the Director shall notify in writing all Permittees who have been granted, or who have applications pending for, ATO's under this General Permit. The written notice shall describe the source's duty to reapply and may include requests for information required under the proposed General Permit.

II. COMPLIANCE WITH PERMIT CONDITIONS

[A.A.C. R18-2-306(A)(1)]

A. The Permittee shall comply with all conditions of this General Permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action, for ATO termination or revocation, or for denial of a renewal application. In addition, non-compliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.

B. Need to halt or reduce activity not a defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[A.A.C. R18-2-321 and -510]

A. The Director may reopen and reissue, or terminate this General Permit at any time if:

1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit, or

2. The Director has determined that the terms and conditions of this General Permit no longer meet the requirements of A.R.S. §§ 49-426 and 427.

B. The Director shall provide written notice to all sources operating under this General Permit prior to reissuance or termination of this General Permit. Such notice shall include an explanation of the basis for the proposed action. Within 180 days of receipt of the notice of the expiration, termination or cancellation of this General Permit, sources notified shall submit an application to the Director for the appropriate permit.

C. The Director may require a source authorized to operate under this General Permit to apply for and obtain an individual source permit at any time if:

1. The source is not in compliance with the terms and conditions of this General Permit;

2. The Director has determined that the emissions from the source or facility class are significant contributors to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit;

3. The Director has information which indicates that the effects on human health and the environment from the sources covered under this General Permit are unacceptable;

4. The Director has reasonable cause to believe that the ATO was obtained by fraud or misrepresentation; or

5. The person applying for an ATO failed to disclose a material fact required by the permit application or the regulations applicable to the ATO of which the applicant had or should have had knowledge at the time the application was submitted.

D. If the Director revokes a source's authority to operate under this General Permit, the Director shall notify the Permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation of authority and a statement that the Permittee is entitled to a hearing. A source previously authorized to operate under this General Permit may operate under the terms of this General Permit until the earlier of the date it submits a complete application for an individual permit, at which time it may operate under that application, or 180 days after receipt of the notice of revocation of authority to operate under this General Permit.

IV. POSTING OF GENERAL PERMIT

[A.A.C. R18-2-315]

A. Any person who has been granted coverage under this General Permit shall post such General Permit, or a certificate of General Permit coverage on location where the equipment is installed in such a manner as to be clearly visible and accessible.

B. All equipment covered by this General Permit shall be clearly marked with a serial number or other equipment number that is listed on the ATO for that piece of equipment.

C. A copy of the complete General Permit and associated ATO's shall be kept on the site.

V. FEE PAYMENT [A.A.C. R18-2-326, 306(A)(9), 511]

The Permittee shall pay fees to the Director pursuant to A.R.S. §49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE [A.A.C. R18-2-327]

A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

VII. COMPLIANCE CERTIFICATION [A.A.C. R18-2-309]

A. The Permittee shall submit a compliance certification to the Director twice each year, which describes the compliance status of the source with respect to each General Permit condition. The Permittee shall list on the compliance certification all items of equipment issued ATO's, on site at the time of the certification. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year, and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year. The initial compliance certification shall reflect the compliance status of the source beginning the date of permit issuance.

B. The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification; [A.A.C. R18-2-309(2)(c)(i)]

2. Compliance status with each applicable requirement; [A.A.C. R18-2-309(2)(c)(ii)]

3. Whether compliance was continuous or intermittent data; [A.A.C. R18-2-309(2)(c)(iii)]

4. Method(s) used for determining the compliance status of the source, currently and over the reporting period; [A.A.C. R18-2-309(2)(c)(iv)]

5. A progress report on all outstanding compliance schedules submitted pursuant to Section XI.D of this Attachment. Progress reports submitted with compliance certifications satisfy the reporting requirements of A.A.C. R18-2-309.5.d. [A.A.C. R18-2-309(5)(d)]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [A.A.C. R18-2-309(3)]

Any document required to be submitted by this General Permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

IX. INSPECTION AND ENTRY [A.A.C. R18-2-309(4)]

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), to perform the following:

A. Enter upon the Permittee's premises where a regulated facility or activity is located or emissions related activity is conducted, or where records are required to be kept under the conditions of this General Permit;

B. Have access to and copy, at reasonable times, any records that are required to be kept under conditions of this General Permit;

C. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this General Permit;

D. Sample or monitor at reasonable times, for the purpose of assuring General Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location; and

E. Record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [A.A.C. R18-2-304(C)]

If a source which has been issued ATO's become subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, reapply for coverage under the General Permit and demonstrate how the source will comply with the standard.

XI. REPORTING OF EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCIES

A. Excess Emissions Reporting [A.A.C. R18-2-310(C)]

1. Excess emissions shall be reported as follows:

a. The Permittee of any source issued an ATO shall report to the Director any emissions in excess of the limits established by this General Permit. Such report shall be in two parts as specified below:

(1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from paragraph b of this subsection.

(2) Detailed written notification within 72 hours of the notification pursuant to subparagraph (1) of this paragraph.

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions emanated.

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.

(3) Date, time and duration or expected duration of the excess emissions.

(4) Identity of the equipment from which the excess emissions emanated.

(5) Nature and cause of such emissions.

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and to prevent the recurrence of such malfunctions.

(7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction of equipment, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this Section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to Subsection A.1.a.(2) of this Section.

3. It shall be the burden of the Permittee of the source to demonstrate, through submission of the data and information required by this Section, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of excess emissions.

B. Permit Deviations Reporting [A.A.C. R18-2-306(A)(5)]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time when the Permittee first learned of the occurrence of the deviations.

C. Emergency Provision Reporting [A.A.C. R18-2-306(E)]

An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

1. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of paragraph (2) of this subsection are met.

2. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

    a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

    b. The permitted facility was at the time being properly operated;

    c. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in this General Permit; and

    d. The Permittee shall submit notice of the emergency to the Director by certified mail, facsimile or hand delivery within 2 working days of the time when emission limitations were exceeded due to an emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

3. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

4. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Submission of Compliance Schedules [A.R.S. §49-425(1)(5)]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

XII. RECORD KEEPING REQUIREMENTS [A.A.C. R18-2-306(A)(4)]

A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;

3. The name of the company or entity that performed the analyses;

4. A description of the analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

XIII. REPORTING REQUIREMENTS [A.A.C. R18-2-306(A)(5)]

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII of Attachment "A".

B. Excess emissions, permit deviations, and emergency reports in accordance with Section XI of Attachment "A".

C. Other reports required in Attachment "B".

XIV. DUTY TO PROVIDE INFORMATION [A.A.C. R18-2-304(G), 306(A)(8)(e)]

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revoking the General Permit coverage, or to determine compliance with this General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit. For information claimed confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

B. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in a General Permit coverage application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XV. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT

[A.A.C. R18-2-317.02]

A. Except for a physical change or change in the method of operation at a Class II source requiring a permit revision under R18-2-317.01, or a change subject to logging or notice requirements in subsection (B) or (C), a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Chapter.

B. Except as otherwise provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source keeps on site records of the changes according to subsection (J):

1. Implementing an alternative operating scenario, including raw material changes;

2. Changing process equipment, operating procedures, or making any other physical change if the permit requires the change to be logged;

3. Engaging in any new insignificant activity listed in R18-2-101(57)(a) through (i) but not listed in the permit;

4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and

5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.

C. Except as provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:

1. Replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: 7 days. The Director may require verification of efficiency of the new equipment by performance tests;

2. A physical change or change in the method of operation that increases actual emissions more than 10% of the major source threshold for any conventional pollutant but does not require a permit revision: 7 days;

3. Replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days. The Director may require verification of efficiency of the new equipment by performance tests;

4. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement;

5. A change that amounts to reconstruction of the source or an affected facility: 7 days. For purposes of this subsection, reconstruction of a source or an affected facility shall be presumed if the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new source or affected facility and the changes to the components have occurred over the 12 consecutive months beginning with commencement of construction; and

6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that source category: 30 days. For purposes of this requirement, an applicable regulatory threshold for a conventional air pollutant shall be 10% of the applicable major source threshold for that pollutant.

D. For each change under subsection (C), the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:

1. When the proposed change will occur,

2. A description of the change,

3. Any change in emissions of regulated air pollutants, and

4. Any permit term or condition that is no longer applicable as a result of the change.

E. A source may implement any change in subsection (C) without the required notice by applying for a minor permit revision under R18-2-319 and complying with subsection R18-2-319(D)(2) and (G).

F. The permit shield described in R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under subsection (B)(1).

G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under subsection R18-317.01(A).

H. If a source change is described under both subsections (B) and (C), the source shall comply with subsection (C). If a source change is described under both subsections (C) and R18-2-317.01(B), the source shall comply with R18-2-317.01(B).

I. A copy of all logs required under subsection (B) shall be filed with the Director within 30 days after each anniversary of the permit issue date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.

J. Logging Requirement

1. Each log entry required by a change under subsection R18-2-317.02(B) shall include at least the following information:

    a. A description of the change, including:

        (1) A description of any process change.

        (2) A description of any equipment change, including both old and new equipment descriptions, model numbers and serial numbers, or any other unique equipment number.

        (3) A description of any process material change.

    b. The date and time that the change occurred.

    c. The provision of R18-2-317.02(B) that authorizes the change to be made with logging.

    d. The date the entry was made and the first and last name of the person making the entry.

2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Director.

XVI. PERFORMANCE TESTING REQUIREMENTS [A.A.C. R18-2-312]

A. Operational Conditions During Performance Testing

Performance tests shall be conducted during operation at the full load of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during start-up, shutdown, malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

B. Performance Test Plan

At least 14 calendar days prior to performing a test, the owner or operator shall submit a test plan to the Director, in accordance with the Arizona Testing Manual. This test plan must include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect the test result.

C. Stack Sampling Facilities

The Permittee shall provide or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility,
2. Safe sampling platform(s),
3. Safe access to sampling platform(s), and
4. Utilities for sampling and testing equipment.

D. Interpretation of Final Results

Each performance test shall consist of three separate runs using the required test method. Each run shall be conducted in accordance with the applicable standard and test method. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. If a sample is accidentally lost or conditions occur which are not under the Permittee's control and which may invalidate the run, compliance may, upon the Director's approval, be determined using the arithmetic mean of the other two runs. If the Director, or the Director's designee is present, performance tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, the performance tests may only be stopped for good cause. Good cause includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme

meteorological conditions or other conditions beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation which demonstrates good cause must be submitted.

E. Report of Final Results

A written report of the results of all tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.B.

XVII. PROPERTY RIGHTS [A.A.C. R18-2-306(A)(8)(d)]

This General Permit does not convey any property rights of any sort, or any exclusive privilege.

XVIII. SEVERABILITY CLAUSE [A.A.C. R18-2-306(A)(7)]

The provisions of this General Permit are severable. In the event of a challenge to any portion of this General Permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

XIX. PERMIT SHIELD [A.A.C. R18-2-325 and -508]

As of the date authority to operate for a source is granted, compliance with the conditions of this General Permit shall be deemed compliance with any applicable requirements in effect on the date of General Permit issuance, provided that such applicable requirements are included and expressly identified in this permit. The permit shield shall not apply to any changes made pursuant to Sections XV of this Attachment.

XX. ACCIDENTAL RELEASE PROGRAM [40 CFR 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

ATTACHMENT "B"
SPECIFIC CONDITIONS

I. INTRODUCTION

[A.R.S. §49-426, and A.A.C. R18-2-501 through 511, R18-2-302(B), R18-2-401(9)(a)]

A. This document is a General Permit which is issued for Crushing and Screening Plants. Individual sources may be covered under this General Permit provided that they meet the criteria described herein.

B. This General Permit is authorized under Arizona Administrative Code, Title 18, Chapter 2 (A.A.C.) R18-2-501 through 511, and Arizona Revised Statutes (A.R.S.) §49-426.

C. This General Permit covers stationary and portable crushing and screening plants that are subject to Federal New Source Performance Standards (NSPS), those subject to State Regulations, or those subject to County Regulations. This General Permit does not apply to Class I sources.

D. Owners/operators of Crushing and Screening Plants (non-metallic mineral processing plants belonging to major group 14 as described in the Standard Industrial Classification Manual, 1987) may obtain coverage under this General Permit in lieu of an individual permit. Such parties shall do so by obtaining an individual Authorization To Operate (ATO) for each crusher, screen, lime silo, air classifier and internal combustion engine (except for those internal combustion engines which are integrated into crushers, screens or conveyors), which will attest to their formal agreement to abide by all conditions contained herein. Other associated pieces of equipment do not require an individual ATO but are subject to the provisions of this General Permit when associated with crushing or screening activities.

E. For sources required to obtain an ATO from Maricopa, Pima or Pinal Counties, references in this document to the "Department" mean the Air Quality Control District (AQCD) and references to the "Director" mean the Control Officer of the AQCD except as otherwise indicated.

F. Due to more stringent requirements in the AQCD's regulations, sources operating in Maricopa, Pima and Pinal Counties may have additional applicable requirements. Sources operating in these counties must comply with the additional requirements detailed in Attachments "C", "D" and "E" of this General Permit in addition to the conditions contained in Attachment "B".

G. This General Permit applies only to the emissions units listed in TABLE 1 below:

TABLE 1: EQUIPMENT COVERED BY THIS GENERAL PERMIT

* Crushers	Conveyors	Bagging Operations	Feed Hoppers
* Screens & Air Classifiers	Storage Bins	Vehicular Traffic	***Maintenance Activities
** Internal Combustion Engines	Weigh Hoppers	Storage Piles	1. Degreasing 2. Abrasive Blasting 3. Welding 4. Surface Coating
* Lime Silos	Loading Facilities	Fuel Handling and Storage	

* Each of these pieces of equipment shall be issued an individual ATO, except for those internal combustion engines which are integrated into crushers, screens or conveyors.

** All Internal Combustion Engines that do not qualify as Non-Road Engines as per 40 CFR §89.2 shall be issued an ATO.

*** These maintenance activities may only be authorized under this General Permit if they are used in support of the crushing and screening plant.

H. CRITERIA FOR COVERAGE AND LIMITATIONS [A.R.S. §49-424, A.A.C. R18-2-306.01]

1. The National Ambient Air Quality Standards (NAAQS) are an applicable requirement for sources covered under this General Permit. To avoid exceedance of the NAAQS for Particulate Matter as established under A.A.C. R18-2-201, no Permittee shall have a Potential to Emit (PTE) of PM_{10} in excess of 13.64 tons per year (TPY) from all process emissions such as crushers, screens, conveyor belt transfer points, and lime silos covered under this General Permit. Coverage will not be granted to sources which have a PTE from all crushers, screens, conveyor belt transfer points, and lime silos that is above 13.64 TPY of PM_{10} considering pollution controls and the hours of operation restrictions in Condition I.H.3 of this Attachment.

2. In order for the Permittees that have obtained coverage under this General Permit to maintain their synthetic minor status, each Permittee shall restrict the total estimated emissions of Oxides of Nitrogen(NO_x) from the internal combustion engines covered under this General Permit to no more than 90 tons per year (TPY). Mobile equipment such as trucks and front end loaders shall not be considered in the determination of total NO_x emissions.

3. Permittees covered under this General Permit may not operate each individual piece of equipment identified in TABLE 1 of this Attachment (except for vehicular traffic, storage piles, and a loadout conveyor) such that the operating hours exceed sixteen (16) hours in any day. However, the Permittees may operate a loadout conveyor (except for internal combustion engines) used for direct loading of materials into an on-road and off-road haul unit 24 hours per day. Permittees may operate on-road and off-road haul units 24 hours per day. Operating hours shall be defined as the actual cumulative time a process or component of the plant was in use.

I. Maricopa County Operational Limitations [Maricopa County Rule 241]

1. The Permittee shall not operate the equipment covered under this General Permit, except for loadout conveyors and on-road and off-road haul units, while inside of Maricopa County, for more than the hours restrictions based upon the cumulative horsepower rating of the supporting internal combustion engine(s) listed in Table 2 below.

TABLE 2: OPERATING HOURS RESTRICTIONS FOR MARICOPA COUNTY

Internal Combustion Engine(s)	Daily Hours Limitation	Annual Hours Limitation
0 hp	16	5280
1- 300 hp	14	5110
301 - 600 hp	7	2555
601 - 900 hp (1 engine)	6	2190
601 - 900 hp (Multiple engines)	4	1460
901 - 1400 hp (1 engine or combination of engines >600 hp)	4	1460

2. Should the Permittee have more than one internal combustion engine that is rated at less than 600 horsepower, and the sum of the horsepower from the internal combustion engines is greater than 901 horsepower, the Permittee shall not operate the internal combustion engines inside of Maricopa County.

3. Should the Permittee desire to operate for a period longer than that specified in paragraphs 1 and 2 above, a Best Available Control Technology (BACT) analysis is required. Under normal circumstances, BACT is to be determined by ADEQ on a case-by-case basis. A top down analysis is generally required for ADEQ's evaluation. The Permittee has the primary responsibility to conduct the top-down analysis which requires that all available control technologies are ranked in descending order of effectiveness along with the associated costs. As an alternative, any internal combustion engine that complies with, or utilizes control technology recognized by the South Coast Air Quality Management District (SCAQMD) will be accepted by ADEQ as BACT. To be deemed as recognized by SCAQMD, a control technology has to be listed in the most currently dated version of the SCAQMD BACT Guidelines. The most currently dated version shall be determined based on the date of issuance of the Authorization to Operate under this General Permit.

4. Should the Permittee have internal combustion engines that have been confirmed to be non-road engines, the Permittee shall be limited to operating the maximum hours of operation allowed under Section I.H above.

5. Should the Permittee have obtained an Authorization to Operate for any internal combustion engine, but still desire to operate more than the allowable corresponding hours of operation as listed in Table 2 of this Attachment, the Permittee shall submit to the Department, a certification that states that the internal combustion engine(s) will not be operated within Maricopa County and that the Permittee shall use commercial electricity to power the equipment covered under this General Permit. Any such certifications shall be submitted along with each move notice notifying the Department of any movement into or within of Maricopa County.

J. Record Keeping Requirements [A.A.C. R18-2-306(A)(3)(b) and -306(A)(4)]

1. The Permittee shall maintain records of the operating hours of the equipment covered under this General Permit. These records shall include the date, the starting time (in hours and minutes), the stopping time (in hours and minutes), and the type of fuel burned in each internal combustion engine.

2. The Permittee shall maintain a rolling twenty-four (24) hour total of the operating hours for the equipment covered under this General Permit.

3. When operating inside of Maricopa County, the Permittee shall maintain a copy of all earth moving permits obtained from Maricopa County on site and available for review upon request.

4. When operating inside of Maricopa County, the Permittee shall maintain a copy of the most recently approved Dust Control Plan on site and available for review upon request.

5. The Permittee shall maintain records of the total daily production and daily average hourly production rate (total daily production divided by that day's hours of operation) of aggregate processed by the equipment covered under this General Permit.

II. APPLICATION FOR AUTHORIZATION TO OPERATE [A.A.C. R18-2-503]

A. Any source which is qualified to be covered by this General Permit (See Section I) may apply to the Department for authority to operate under this General Permit. Applicants shall submit the application form and necessary information included in Appendix 1 of Arizona Administrative Code (A.A.C.) Title 18, Chapter 2. Applicants may complete additional forms available from the Department. Such application must specifically state that coverage under this General Permit is requested.

B. If the Applicant is a rental company, the Applicant will apply for coverage under the General Permit by grouping together representative crushers, screens, lime silos, air classifiers, internal combustion engines, and associated equipment that are typical of the plants that are rented out to the crushing/screening

industry. The emissions from this grouping will be limited to the 13.64 TPY of PM_{10} and 90 TPY of NO_X limitations and will then be considered as one coverage under this General Permit. The Applicant will continue grouping equipment as previously mentioned until all crushers, screens, lime silos, internal combustion engines, and associated equipment are covered under this General Permit. Depending upon the amount of rental equipment that is owned by the applicant, it is possible that the Applicant may end up with multiple coverages under this General Permit.

C. In order to be granted coverage under this General Permit, applicants must submit and agree to operate in accordance with an acceptable compliance plan which includes an operation and maintenance (O&M) plan for each device or system used to reduce emissions.

D. Jurisdiction [A.R.S. §49-480]

Maricopa, Pima and Pinal Counties AQCD may administer, inspect, and enforce this General Permit and issue ATO's for sources under their jurisdiction. The agency which issues the ATO has jurisdiction over these sources and is responsible for enforcing the conditions of this General Permit unless the Arizona Department of Environmental Quality (ADEQ) asserts jurisdiction over these sources.

1. Stationary Sources

   Stationary sources wishing to obtain coverage under this General Permit and associated ATO's shall apply to the ADEQ except for stationary sources which are located exclusively in Maricopa, Pima and Pinal Counties. These stationary sources shall obtain coverage from the proper county agency.

2. Portable Sources

   a. A portable source is any stationary source which is capable of being transported and operated in more than one county of Arizona.

   b. According to A.R.S. §49-402 portable sources wishing to obtain coverage under this General Permit shall apply to the ADEQ. However, if the portable source will operate for the remaining time of this General Permit in a county with an AQCD, then that county agency will process the application for coverage under this General Permit.

   c. Only under some unforseen situation may a portable source which has received coverage under this General Permit from a county AQCD, be allowed to operate in any other county unless one of the following should occur:

      (1) If a portable source is proposing to operate outside of a county that has an AQCD, then the portable source shall apply to the ADEQ for coverage under this General Permit before leaving that county; or

(2) If a portable source is proposing to operate for the remaining time of the General Permit inside a different county that has an AQCD, then the portable source shall apply to that county agency for coverage under this General Permit before leaving that county.

III. CRUSHING AND SCREENING FACILITY REQUIREMENTS

A. Applicability

NSPS and Non-NSPS Rule Applicability [40 CFR 60.670(e)]

1. An NSPS crushing and screening facility is defined as any combination of the following equipment that commenced construction, reconstruction, or modification after August 31, 1983:

   a. Crushers;
   b. Grinding mills;
   c. Screening operations;
   d. Bucket elevators;
   e. Belt conveyors;
   f. Bagging operations;
   g. Storage bins;
   h. Enclosed truck or railcar loading stations;

   as well as any portable sand and gravel plants and crushed stone plants with capacities, as defined in Condition III.B, greater than 150 tons per hour.

2. A Non-NSPS crushing and screening facility is defined as any combination of the following equipment that was constructed on or before August 31, 1983:

   a. Rock crushers;
   b. Screens;
   c. Air classifiers;
   d. Conveyors and conveyor transfer points;
   e. Stackers;
   f. Reclaimers;
   g. All gravel or crushed stone processing plants;

   as well as any portable sand and gravel plants and crushed stone plants with capacities, as defined in Condition III.B, less than or equal to 150 tons per hour.

B. Definitions [40 CFR 60.671]

1. Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

2. Portable means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

C. NSPS Source Requirements

1. Particulate Matter Emissions [40 CFR 60.672(a), (b), (c) and R18-2-331]

[Material permit conditions are indicated by underline and italics]

a. Specific conditions for screening, conveyor operations, and fine ore storage bins

The Permittee shall not allow to be discharged into the atmosphere any process fugitive emissions which exhibit visible emissions greater than 10 percent opacity.

b. Specific conditions for crusher operations

The Permittee shall not allow to be discharged into the atmosphere from any crusher, at which a capture system is not used, any process fugitive emissions which exhibit visible emissions greater than 15 percent opacity.

c. Specific conditions for truck/railcar loading or bagging operations

The Permittee shall not allow to be discharged into the atmosphere any process fugitive emissions which exhibit visible emissions greater than 10 percent opacity.

d. Specific conditions for operations enclosed in a building

If any portion of the operation is enclosed in a building, the building must comply with the following requirements:

(1) *The Permittee shall not allow to be discharged into the atmosphere from the building any visible emissions except for emissions from the vent, and*

(2) *The Permittee shall not allow to be discharged into the atmosphere from any vent of the building any gases which* contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot) and *exhibit greater than 7 percent opacity.*

2. Initial Compliance Testing for NSPS Affected Facilities

a. Test Method and Procedures

For the purposes of determining initial compliance with the applicable opacity limits, the owner or operator shall conduct or cause to be conducted the tests and procedures set forth in EPA Reference Method 9 for affected facilities which are subject to the NSPS provisions.

b. Time Periods

Opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial start-up of the facility.

D. Notification Requirements for NSPS Sources [40 CFR 60.7]

1. The Permittee shall furnish to the Department for all new facilities that were not previously permitted a written notification as follows:

a. A notification of the date construction or reconstruction (as defined under 40 CFR §60.15 and §60.673) of the permitted facility is commenced postmarked no later than 30 days after such date.

b. A notification of the anticipated date of initial startup of a permitted facility postmarked not more than 60 days nor less than 30 days prior to such date.

c. A notification of the actual date of initial startup of a permitted facility postmarked within 15 days after such date.

2. The Permittee shall furnish to the Department for any affected facility subject to Section III.C of this Attachment, a written notification as follows:

a. A notification of any physical or operational change to an affected facility subject to Section III.C of this Attachment, which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e).

b. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Director may request additional relevant information subsequent to this notice.

E. Non-NSPS Source Requirements

Particulate Matter Emissions [A.A.C. R18-2-702(B)(2), and -722(B)(2)]

1. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere, except as fugitive emissions, in any one hour from any gravel or crushed stone processing plant in total quantities in excess of the amounts calculated by one of the following equations:

   a. For process sources as defined in Condition III.A.2 of this Attachment, having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable particulate emissions shall be determined by the following equation:

      $$E = 4.10\ P^{0.67}$$

      where:

      E = the maximum allowable emissions rate in pounds-mass per hour.
      P = the process weight rate in tons-mass per hour

   b. For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

      $$E = 55.0\ P^{0.11} - 40$$

      where "E" and "P" are defined as in Section III.E.1.a above.

2. The opacity of any emissions or effluent from any gravel or crushed stone processing plant shall not be greater than 40 percent.

F. Air Pollution Control Requirements [A.A.C. R18-2-331 and -722(D)]

[Material permit conditions are indicated by underline and italics]

1. Spray Bars

   a. *Water spray bars shall be used on all crushers and screens whenever the equipment is operating or material must be adequately wet to minimize visible emissions to the extent practical.*

   b. *Spray bar pollution control shall be utilized in accordance with "EPA Control of Air Emissions From Process Operations in the Rock Crushing Industry" (EPA 340/1-79-002), and "Wet Suppression System" (pages 15-34, amended as of*

January, 1979 (and no future amendments or editions)), as incorporated herein by reference and on file with the Office of the Secretary of State, with placement of spray bars and nozzles as required by the Director to minimize air pollution.

2. Wet Scrubber Monitoring [40 CFR §60.670, 674 and 676]

a. Only for the case in which a wet scrubber is used to control emissions, *the owner or operator of any affected facility subject to the NSPS provisions of Section III.C of this Attachment, shall install*, calibrate, maintain and operate *the following monitoring devices:*

(1) Pressure Loss:

A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) Liquid Flow Rate:

A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

b. Periodic Wet Scrubber Monitoring

(1) After the initial performance test, the Permittee shall operate the Wet Scrubber in such a manner that the pressure differential of the gas stream and the liquid flow rate through the Wet Scrubber do not differ by more than ±30 percent of the average obtained during the most recent performance test.

(2) Should the pressure differential of the gas stream or the liquid flow rate through the Wet Scrubber differ by more than ±30 percent of the averages obtained in the most recent performance test, the Permittee shall repair the controls and equipment in such a way that the pressure differential of the gas stream and the liquid flow rate through the Wet Scrubber differ by less than ±30 percent of the average. The Permittee shall then record the name of the observer, date and time of the deviation.

G. Testing Requirements [A.A.C. R18-2-306(A)(3), and -312(B)]

1. Beginning from the issuance of an Authorization to Operate under this General Permit, a quarterly Method 9 observation shall be conducted on the crushing and screening facility by a certified Method 9 observer. All performance tests shall be conducted and data reduced in accordance with EPA Reference Method 9 in order to determine the opacity of visible emissions. Upon completion of the observation, the Permittee shall record the name of the observer, date, time and result of the observation.

2. Beginning from the issuance of an Authorization to Operate under this General Permit, a quarterly Method 22 observation shall be conducted on the fugitive emissions discharged from any building that houses any equipment subject to this General Permit. All performance tests shall be conducted in accordance with EPA Reference Method 22. Upon completion of the observation, the Permittee shall record the name of the observer, date, time and result of the observation.

H. Maintenance, Monitoring and Record Keeping Requirements

1. Periodic Monitoring Requirements [A.A.C. R18-2-722(F), and -331]

[Material permit conditions are indicated by underline and italics]

The Permittee shall install, calibrate, maintain, and operate *monitoring devices which can be used to determine daily the process weight of sand, gravel or crushed stone produced. The weighing devices shall have an accuracy of plus or minus 5 percent over their operating range.*

2. Record Keeping Requirements [A.A.C. R18-2-306(A)(3)(b), -306(A)(4)]

The Permittee shall maintain records of the daily process weight of sand, gravel or crushed stone produced by the crushing and screening equipment.

IV. AUXILIARY LIME SILOS

A. Particulate Matter Emissions [A.A.C. R18-2-730, 702]

1. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any lime silo in total quantities in excess of the amounts calculated by one of the following equations:

a. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable particulate emissions shall be determined by the following equation:

$$E = 4.10\ P^{0.67}$$

where:

E = the maximum allowable emissions rate in pounds per hour.
P = the process weight rate in tons per hour.

b. For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$$E = 55.0\ P^{0.11} - 40.0$$

where "E" and "P" are defined as in Condition IV.A.1.a above.

2. The opacity of any plume or effluent from any lime silo shall not be greater than 40 percent, as measured in accordance with EPA Reference Method 9.

B. Air Pollution Control Requirements [A.A.C. R18-2-306(A)(2), -331, and 40 CFR 60.11(d)]

[Material permit conditions are indicated by underline and italics]

1. *At all times, including periods of startup, shutdown and malfunction, the Permittee shall to the extent practicable,* maintain and *operate a baghouse or wet scrubber on the lime silo in a manner consistent with good air pollution control practice for minimizing emissions.*

2. Loading of lime storage silos shall be conducted in such a manner that the displaced air does not by-pass the baghouse and will not be directly vented to the atmosphere.

C. Testing Requirements [A.A.C. R18-2-306(A)(3) and -312(B)]

Beginning from the issuance of an Authorization to Operate under this General Permit, a quarterly Method 9 observation shall be conducted on the auxiliary lime silos by a certified Method 9 observer. All performance tests shall be conducted and data reduced in accordance with EPA Reference Method 9 in order to determine the opacity of visible emissions. Upon completion of the observation, the Permittee shall record the name of the observer, date, time and result of the observation.

V. INTERNAL COMBUSTION ENGINES

A. Applicability [R18-2-719(A), and 40 CFR §89.2]

1. The provisions of this Section are applicable to all internal combustion engines that do not meet the definition of a non-road engine as per 40 CFR §89.2. Internal combustion engines that do qualify as non-road engines as per 40 CFR §89.2 may not be required to obtain coverage under this General Permit. In order to be exempt from the requirements of this Section, the Permittee shall submit a letter to the Department explaining why the internal combustion engine meets the definition of a non-road engine as it is presented in 40 CFR §89.2.

2. Until receipt of the Department's confirmation that the internal combustion engine is a non-road engine, all internal combustion engines shall comply with the requirements presented in this General Permit.

B. Emissions Limitations and Standards [A.A.C. R18-2-719(C)(1) and (E)]

1. The Permittee shall not cause or allow to be discharged into the atmosphere particulate matter in excess of the amount calculated by the following equation:

$$E = 1.02\ Q^{0.769}$$

where:

E = The maximum allowable particulate emissions rate in pounds-mass per hour.
Q = The heat input in million Btu per hour.

For the purposes of this condition, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

2. The Permittee shall not cause or allow to be discharged into the atmosphere smoke from any internal combustion engine which exhibits an opacity of greater than 40%, measured in accordance with EPA Reference Method 9. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

C. Maintenance Requirements [A.A.C. R18-2-306(A)(2) and -306.01]

The Permittee shall operate and maintain all internal combustion engines in accordance with manufacturer's specifications.

D. Fuel Limitations

1. Permitted Fuel and Requirements [A.A.C. R18-2-306(A)(2), -306.01, and -719(F), (H)]

a. The Permittee shall **only** burn natural gas, liquified petroleum gas (LPG), gasoline or diesel fuel in an internal combustion engine.

b. The Permittee shall not cause, allow or permit emissions of more than 1.0 pounds of sulfur dioxide per million Btu of heat input. The Permittee is prohibited from the use of high sulfur oil (sulfur content greater than 0.8 weight %).

2. Record Keeping and Reporting Requirements [A.A.C. R18-2-306(A)(3)(b), -306(A)(4), and -719(J)]

a. When fuel oils are burned in an internal combustion engine, the Permittee shall maintain records of fuel supplier certifications that verify the sulfur content of the fuel oil that is specified in Section V.D.1 of this Attachment.

b. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in an internal combustion engine exceeds 0.8 percent.

VI. NON-POINT SOURCE REQUIREMENTS

A. Prevention of Excessive Non-Point Source Emissions

1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

a. Use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations, demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated;
[A.A.C. R18-2-604(A)]

b. Use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicle activity occurs;
[A.A.C. R18-2-604(B)]

c. Use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired constructed, or reconstructed; [A.A.C. R18-2-605(A)]

d. Use dust suppressants, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust; [A.A.C. R18-2-605(B)]

e. Use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, screening, handling, transporting or conveying material that is likely to give rise to airborne dust; [A.A.C. R18-2-606]

f. Adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material; [A.A.C. R18-2-607(A)]

g. Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and with the use of spray bars and wetting agents;
; [A.A.C. R18-2-607(B)]

h. Use wetting agents or dust suppressants before the cleaning of site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means; or [A.A.C. R18-2-804(B)]

i. Any other method as proposed by the Permittee and approved by the Director.

2. Open Burning [A.A.C. R18-2-602]

Except as provided in A.A.C. R18-2-602.C(1), C(3), and C(4), and except when permitted to do so by either ADEQ or the local officer delegated the authority for issuance of open burning permits, the Permittee shall not conduct open burning.

3. Record Keeping Requirements [A.A.C. R18-2-306(A)(3)(b), and -306(A)(4)]

a. The Permittee shall maintain records of the dates on which any of the activities listed in Section VI.A.1 of this Attachment were performed and control measures employed.

b. The Permittee shall maintain copies of all open burning permits on file.

c. All required records shall be maintained in either an electronic format or in a handwritten logbook utilizing indelible ink.

B. Control of Non-Point Source Emissions

1. Opacity Limitations and Testing [A.A.C. R18-2-312(B), and -610]

The Permittee shall not cause or allow to be discharged into the atmosphere any emissions from a non-point source which exhibit an opacity of greater than 40%, as measured in accordance with EPA Reference Method 9.

2. Air Pollution Control Requirements [A.A.C. R18-2-331 and -604(A), -604(B), -605, -606 and -607]
[Material permit conditions are indicated by underline and italics]

The Permittee shall operate and maintain *the following air pollution controls:*

Water or an equivalent control shall be used to control visible emissions from haul roads and storage piles or haul roads and storage piles shall be adequately wet to minimize visible emissions to the extent practical.

VII. STANDARDS OF PERFORMANCE FOR ABRASIVE BLASTING

A. Particulate Matter Emissions [A.A.C. R18-2-702(B) and -726]

1. The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

   a. Wet blasting;
   b. Effective enclosures with necessary dust collecting equipment; or
   c. Any other method as approved by the Director.

2. The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 40% opacity as measured by EPA Reference Method 9.

B. Record Keeping Requirements [A.A.C. R18-2-306(A)(3)]

Each time an abrasive blasting project is conducted, the Permittee shall make record of the following:

1. The date the project was conducted;
2. The duration of the project; and
3. Type of control measures employed.

VIII. STANDARDS OF PERFORMANCE FOR SPRAY PAINTING OPERATIONS

A. Visible Emissions [A.A.C. R18-2-702(B)]

Visible emissions from spray painting operations shall not have an opacity greater than 40%, as measured in accordance with EPA Reference Method 9.

B. Volatile Organic Compound Emissions [A.A.C. R18-2-727, and SIP provision R9-3-527(C)]

1. The Permittee shall not conduct any spray painting operation without minimizing organic solvent emissions. Such operations other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

2. The Permittee shall not either:

   a. Employ, apply, evaporate or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
   b. Thin or dilute any architectural coating with a photochemically reactive solvent.

3. For the purposes of paragraphs 2 and 5 of this Section, a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in paragraphs (1) through (3) of this subsection, or which

exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

a. A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation - hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: five percent.

b. A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethyl-benzene: eight percent.

c. A combination of ethyl-benzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: twenty percent.

4. Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups or organic compounds described in subsection 3(a) through 3(c) of this Section, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

5. The Permittee shall not dispose by evaporation more than 1.5 gallons of photochemically reactive solvent in any one day.

C. Monitoring and Record Keeping Requirements [A.A.C. R18-2-306(A)(3)]

1. Each time a spray painting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

a. The date the project was conducted;
b. The duration of the project;
c. Type of control measures employed; and
d. Material Safety Data Sheets for all paints and solvents used in the project.

2. Architectural coating and spot painting projects shall be exempt from the record keeping requirements of Section VIII.C.1 above.

IX. STANDARDS OF PERFORMANCE FOR PETROLEUM LIQUID STORAGE VESSELS

A. Control Device Standards [A.A.C. R18-2-710(B) through (D)]

1. The Permittee shall not place, store, or hold liquid petroleum in any reservoir, stationary tank, or other container having a capacity of 40,000 or more gallons.

2. Any petroleum liquid or storage tank shall be equipped with a submerged filling device, or acceptable equivalent, for the control of hydrocarbon emissions.

3. All facilities for dock loading of petroleum liquid products, having a vapor pressure of 1.5 pounds per square inch absolute or greater at loading pressure, shall provide for submerged filling or acceptable equivalent for control of hydrocarbon emissions.

4. All pumps and compressors which handle volatile organic compounds shall be equipped with mechanical seals or other equipment of equal efficiency to prevent the release of organic contaminants into the atmosphere.

B. Record Keeping Requirements [A.A.C. R18-2-710]

1. The owner or operator of any petroleum liquid storage vessel subject to the conditions of this Section shall for each such storage vessel maintain a file of the typical Reid vapor pressure for the petroleum liquid being stored and of the dates of storage. Dates on which the storage vessel is empty shall also be shown.

2. The owner or operator of any petroleum liquid storage vessel subject to the conditions of this Section shall for such storage vessel determine and record the average monthly storage temperature and true vapor pressure of the petroleum liquid being stored at such temperature if either:

   a. The petroleum liquid has a true vapor pressure, as stored, greater than 26 mm Hg (0.5 psia) but less than 78 mm Hg (1.5 psia) and is stored in a storage vessel other than one equipped with a floating roof, a vapor recovery system or their equivalents; or

   b. The petroleum liquid has a true vapor pressure, as stored, greater than 470 mm Hg (9.1 psia) and is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent.

3. The average monthly storage temperature shall be an arithmetic average calculated for each calendar month, or portion thereof, if storage is for less than a month, from bulk liquid storage temperatures determined at least once every seven days.

4. The true vapor pressure shall be determined by the procedures in American Petroleum Institute Bulletin 2517, amended as of February, 1980 (and no future editions), which is incorporated herein by reference and on file with the Office of the Secretary of State. This procedure is dependant upon determination of the storage temperature and the Reid vapor pressure, which requires sampling of the petroleum liquid in the storage vessels. Unless the Director requires in specific cases that the stored petroleum liquid be sampled, the true vapor pressure may be determined by using the average monthly storage temperature and the typical Reid vapor pressure. For those liquids for which certified specifications limiting the Reid vapor pressure exist, the Reid vapor pressure may be used. For other liquids supporting analytical data must be made available upon request to the Director when typical Reid vapor pressure is used.

X. CONDITIONS SPECIFIC TO A PORTABLE SOURCE

A. Equipment Identification [A.A.C. R18-2-315(A)(2) and -324(E)]

The equipment serial number or equipment identification (I.D.) number, utilizing not less than four-inch high characters, shall be stenciled on each permitted piece of equipment, and referenced in all correspondence with the Department.

B. Move Notice [A.A.C. R18-2-324(D)]

A portable source may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director of the transfer by certified mail at least ten (10) working days before the transfer. The location change shall be submitted via the standard form provided by the Department and shall include the following:

1. A description of **all** permitted equipment (under the same owner or operator) which is going to be present at the site including the permit number, the manufacturer, the model number, including the serial number and equipment ID number(s) for such equipment;

2. The address and description of the present location of the equipment;

3. The address and description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;

4. The date on which equipment is to be moved;

5. The date on which operation of the equipment will begin at the new location;

6. The expected duration of stay at the new location;

7. A statement describing whether or not the Permittee will be moving equipment to and operating within the following Town Limits/Location: Bullhead City, Hayden, Rillito, Phoenix Metropolitan Area, or City of Yuma;

8. A description of the equipment that will be transferred to the new location, including the ATO number(s) for such equipment;

9. A description of the equipment already at the new location that is under the same owner or operator, including the ATO number(s) for such equipment;

10. Provide a plot plan of the equipment configuration for the new location (includes equipment being moved to the new location and equipment already present at the new location);

11. A calculation of the potential to emit for all equipment at the new location, including any equipment already present under the same owner or operator, if any piece of equipment at the new location was not accounted for in the general permit application.

C. Dust Control Plan Submission [Maricopa County Rule 310]

1. All Dust Control Plans shall be submitted to the Department along with each move notice that notifies the Department of movement into or within Maricopa County.

2. For each site within Maricopa County that the Permitte operates, a Dust Control Plan shall be submitted to the ADEQ Inspections and Field Services Unit. The Dust Control Plan shall describe all control measures to be implemented to control dust generating operations.

3. All Dust Control Plans shall, at a minimum, contain the elements of information required by Condition VI.E.4 of Attachment "C".

4. Unless the Permittee receives an official determination from the Department stating the contrary, all Dust Control Plans shall be deemed approved by default ten days after submission.

D. Renting or Leasing Permitted Equipment [A.A.C. R18-2-324(C)]

In the case that equipment covered under this General Permit is rented or leased, a copy of this General Permit and relevant ATO's shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by this permit's provisions. In the event a copy of this General Permit and relevant ATO's are not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of this equipment in compliance with the General Permit conditions and any violations thereof.

E. Portable Source Operating Solely in One County [A.A.C. R18-2-324(A) and -324(B)]

A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. 49-479 shall obtain a permit from that county. A portable source with a county permit, shall not operate in any other county until it receives a permit from the Arizona Department of Environmental Quality.

GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

ATTACHMENT "C"
CONDITIONS FOR OPERATION INSIDE MARICOPA COUNTY

I. SPECIFIC REQUIREMENTS

MARICOPA COUNTY REQUIREMENTS FOR ABRASIVE BLASTING (Rule 312)

A. **Opacity Limits:** The Permittee shall not allow emissions from any abrasive blasting activity to exceed 20% opacity for an aggregate of more than three minutes during any one hour period. The opacity shall be measured in accordance with Rule 312, Sec. 500 of Maricopa County Air Pollution Control Regulations.

B. **Control Parameters:** The Permittee shall utilize at least one of the following control measures for all abrasive blasting:

1. Confined blasting.
2. Wet abrasive blasting.
3. Hydroblasting.
4. The use of a California Air Resource Board (CARB) certified abrasive blasting media is a permissible control measure for use in dry unconfined blasting operations provided that the following conditions are all met:

    a. Only abrasives on the most recent CARB certification list may be used in the abrasive blasting process;
    b. Blasting is performed only on a metal substrate;
    c. The abrasive blasting media is used only once;
    d. The existing paint on the surface to be abraded has a lead content less than 0.1%;
    e. The blasting complies with the 20% opacity limits of Rule 312;
    f. The object to be blasted exceeds 8 feet in any dimension or the surface to be blasted is situated at its permanent location; and
    g. Blasting is not performed on ground level on a surface which may be disturbed by the process and contribute to particulate emissions (e.g., unpaved ground).

C. **Record Keeping:** The Permittee shall keep records of the following:

1. The dates when abrasive blasting activities are conducted, the type of abrasive material used, the type of control measure used, and the engine run time hours if an engine larger than 50 horsepower is used. If a CARB approved abrasive blasting media is used to meet the Control Requirements of these Permit Conditions, the following information shall also be recorded for each application:

2. the name of the abrasive media used as it appears on the latest CARB approved certification list;

3. the type of substrate being blasted;

4. if there is reason to believe that the coating being abraded contains lead, the lead content of the coating expressed as a percent by weight; and

5. verification that the object being abraded has either a dimension greater than 8 feet or it is situated at its permanent location.

D. The Permittee shall keep monthly records of the type and amount of abrasive blasting media used.

MARICOPA COUNTY REQUIREMENTS FOR VEHICLE REFINISHING

II. Operational Requirements and Limitations

The following permit conditions do not apply to materials that contain 2.0% or less VOC by either weight or volume, or have less than 0.17 lbs VOC per gallon (20 g/liter) material VOC content, as determined from a manufacturer's product data document such as a current manufacturer's material safety data sheet (MSDS) that provides exact product contents.

The Permittee shall ensure that authorized activities are conducted in accordance with the following conditions:

A. Spray Coating

1. VOC Content Limitations for Coatings:

   a. Refinish Coatings for Body, Chassis, and Appurtenances of Automobiles/Light-Duty Vehicles:

      (1) The Permittee shall not apply coating on a previously finished automobile/-light-duty vehicle unless the coating's VOC content complies with the applicable limits listed in Table 1 of this Attachment.

      (2) When coating vehicle body appurtenances such as mirrors, trim strips, license plate frames, etc., which are used to replace or supplement existing appurtenances on automobile/light-duty vehicle bodies, the Permittee shall use a coating that meets the applicable VOC limits in Table 1 of this Attachment even if the item has never been coated or used.

Table 1
Refinishes Applied to the Bodies of
Automobile/Light-Duty Vehicles or Motorcycles
VOC Limits for Refinish Coatings As Applied, Minus Exempt Compounds [1,2]

Coating category	Pounds per gallon (lbs/gal)	Grams per liter (g/L)
Pretreatment wash primers	6.5	780
Primers/primer surfacers	4.8	580
Primer sealers	4.6	550
Single/two-stage topcoats	5.0	600
Topcoats of more than two stages	5.2	630
Multi-colored topcoats	5.7	680
Specialty coatings	7.0	840
Strippable booth coatings	3.5	420

1 Coating with a non-refillable aerosol can is exempt.

2 Coating otherwise subject to Table 1 limits but manufactured before January 15, 1999 is exempt from Table 1 limits until November 1, 1999.

b. Refinish Coatings for Body, Chassis, and Appurtenances of Heavy Trucks and Truck Trailers:

(1) The Permittee shall not apply coating on a previously finished heavy truck or truck trailer unless the coating's VOC content complies with the applicable limits listed in Table 2 of this Attachment.

(2) The Permittee shall not apply coating on replacement appurtenances used to replace or supplement existing appurtenances such as mirrors, trim strips, license plate frames, wheel covers, etc., unless the coating's VOC content complies with the applicable limit listed in Table 2 of this Attachment or meets the requirements for spot refinishing of heavy trucks.

(3) Spot Refinishing of Heavy Trucks: The Permittee shall not coat a heavy truck panel, a juncture of panels, or a body appurtenance, unless the coating's VOC content complies with the applicable limit for spot coats in Table 2 of this Attachment, and

(a) The coating is applied from a reservoir having a gross volume not exceeding 1.2 liters (5 cups) and containing no more than 1 liter (1.1 quart) of coating.

(b) The complete topcoat of a single stage finish shall not use more than 1 liter.

(c) The complete topcoat of a multi-stage finish shall not exceed 2 liters.

(d) The total of all non-topcoat coatings, including wash and primers, shall not exceed 1 liter.

Table 2
VOC Limits for Refinish Coating As Applied to Heavy Truck Bodies, As Applied, Minus Exempt Compounds[1]

Coating category	Current Pounds per gallon (lbs/gal)	Current Grams per liter (g/L)	November 1, 2001 Pounds per gallon (lbs/gal)	November 1, 2001 Grams per liter (g/L)
Pretreatment wash primers	6.5	780		
Primers/primer surfacers	4.8	580	3.5	420
Primer sealers	4.6	550	3.5	420
Single-stage, solid color	5.0	600	3.5	420
Single-stage, metallic/iridescent	4.6	550	3.5	420
Two-Stage topcoat, basecoat, and clearcoats	5.0	600	4.0	480[1]
Topcoats of more than two stages	5.2	630	4.0	480
Spot coats, 1 Liter limit each stage	5.0	600		546[2]
Specialty coatings as defined in Definitions	7.0	840		
Strippable booth coatings	2.0			

[1] Coating with a non-refillable aerosol can is exempt.

[2] The VOC limit for Spot Coats is 546 grams/Liter beginning November 2, 2002.

c. Refinish Coatings for Body, Chassis, and Appurtenances of Mobile Equipment and Heavy-Duty Vehicles: The Permittee shall use coatings with VOC contents listed in Table 3 of this Attachment to refinish any mobile equipment or heavy-duty vehicle that is not a heavy truck, except that pre-treatment acid etchant wash shall not exceed 6.5 lb VOC/gal (780 g VOC/L).

d. Refinishing Surfaces That Are Not Part of the Body, Chassis, Wheels, or Appurtenances: The Permittee, when recoating a section of:

(1) A light-duty vehicle;

(2) A heavy-duty vehicle such as a trailer, bus, canopy, truck, construction equipment, or recreational vehicle;

(3) A heavy truck with a manufacturer's gross vehicle weight rating of 8600 lbs or more that is licensed for highway travel such as a cab/tractor, truck or van that is equipped to pull any trailer or semi-trailer; or

(4) Mobile equipment that is not part of its body/chassis, its body's appurtenances, nor its wheels shall use a coating that meets the VOC limits in Table 3 of this Attachment. This includes drive train, steering gear, suspension, etc.

e. The Permittee shall not coat new or never coated surfaces of heavy trucks, mobile equipment, and vehicles not manufactured under NAICS code 33611, unless the coating VOC content is 3.5 lb VOC/gal (420 g/L) or less for all unbaked coatings over metal or plastic or unless the coating VOC content meets the limit as listed in Table 3 of this Attachment for surfaces other than metal or plastic.

Table 3
VOC Limits for Coating As Applied To Uncoated Vehicle Surfaces[1]

Coating On Metal Surfaces The following includes Coating, Adhesive, & Adhesive Primer	Pounds per gallon (lbs/gal)	Grams per liter (g/L)
Air-Dried Coating, Adhesive, & Adhesive Primer:	3.5	420
Baked Coating, Adhesive, & Adhesive Primer [above 200EF (93EC)]	3.0	360
Coating on Vinyl Surfaces	3.8	450
Coating on Fabric Surfaces	2.9	350
Coating Plastic Surfaces not defined as flexible	3.5	420
Coating Flexible Plastic Surfaces (not Vinyl)		
- Primer	4.1	490
- Color Topcoat	3.8	450
- Basecoat/Clear Coat (Combined System)	4.5	540

[1] Coating with a non-refillable aerosol can is exempt.

B. **Mixing Requirements:** The Permittee shall not allow the addition of VOC-containing thinner, reducer, or other diluent to any refinish coating listed in Table 1 or Table 2 in proportions higher than those specified or recommended by the instructions provided by the supplier of the coating.

C. **Coating and Solvent Usage:** The Permittee shall not allow the monthly and annual usage of combined coatings, diluents, and cleaning solvents to exceed any of the limits in the following table:

Material	Maximum Monthly Usage Limits	Rolling Twelve Month Usage Limit

Coating (s) + Diluent(s) + Cleaning Solvent(s)	500 gallons	6000 gallons

The Rolling Twelve Month Limit shall include every period of twelve consecutive calendar months.

D. Surface-Preparation and Surface-Cleaning Fluids:

1. Surface-preparation and surface-cleaning fluids for coating using a wipe method or other non-dip method shall contain no more than 1.4 pounds of VOC per gallon.

2. The Permittee shall not apply a surface cleaner nor surface preparation material that contains VOC by means of motor-compressed air if applied in a mist or (finely atomized) spray.

E. Maintenance: The Permittee shall operate and maintain in proper working order all production and cleaning equipment in which VOC-containing materials are used or stored.

F. Paint Booth: The Permittee shall conduct spray coating operations:

1. Inside of a spray booth with forced air exhaust that meets the following requirements:

   a. The spray booth filtering system shall have an average overspray removal efficiency of at least 92% by weight for the type of material being sprayed, as certified by the manufacturer or by ASHRAE Standard 52-76.

   b. No gaps, sags, or holes shall be present in the filters and all exhaust must be vertically discharged into the atmosphere.

   c. Spray booths or enclosures utilizing a water curtain, waterfall or other means to capture particulates in a liquid medium shall effectively remove at least 92% of the overspray and be operated in a manner consistent with the manufacturer's specifications to achieve such efficiency for the type of material being sprayed.

2. Inside an enclosure which has at least three sides a minimum of eight feet in height and able to contain any object or objects being coated. Spray shall be directed in a horizontal or downward pointing manner so that overspray is directed at the walls or floor of the enclosure. No spraying shall be conducted within three feet of any open end or within two feet of the top of the enclosure.

3. In an enclosure or spray booth located entirely in a completely enclosed building, providing that any vents or openings do not allow overspray to be emitted into the outside air.

4. Outside, if only hand-held aerosol cans are used.

G. Paint Gun Usage Requirements and Limits:

1. The Permittee shall not apply any coating with a VOC content exceeding 3.0 lb VOC/gal (360 g/l) using a spray gun unless such spraying employs one of the following devices or systems:

   a. A low pressure spray gun or system (such as HVLP), or
   b. An electrostatic system, or
   c. A system that atomizes principally by hydraulic pressure, including "airless" and "air assisted airless."

2. The Permittee may use a spray gun which does not comply with paragraph of this condition only under the following circumstances:

   a. For applying materials that have a VOC content not exceeding 3.0 lb VC/gal (360 g/l) as applied, less water and non-precursor compounds.

   b. If such guns are designed and used solely for detailing or touch-up, and have a maximum reservoir capacity of 250 cc (8.8 fluid ounces).

   c. If such guns are used to apply adhesives.

H. Cleanup and Cleaning of Supply and Application Equipment:

1. The Permittee may conduct manual cleaning of a spray gun if the gun cleaning machine is used immediately after manual cleaning and without spraying cleaning solvent with the gun. The Permittee shall ensure that all solvent used to manually clean spray guns is collected into a container which shall be immediately closed after all the solvent has been collected.

2. The Permittee shall ensure that all solvent used for line cleaning shall be pumped or drained into a container kept closed when not in use.

3. The Permittee shall ensure that tanks used for stripping off coating or for cleaning objects shall be covered when not in use. Solvent-dragout shall be minimized by tilting or rotating the object to drain off any pools of solvent before removing the object from above the tank.

I. Gun Cleaning Machines: The Permittee shall use a paint-gun cleaning machine to clean paint guns. However, a gun cleaning machine is not required to clean a paint gun if the gun is cleaned with water or a cleaning mixture that is more than 1/2 water by weight or volume.

1. General Requirements For Gun Cleaning Machines. The gun-cleaning machine shall:

   a. Be designed to clean paint-guns and be kept in proper repair and free from liquid leaks.

b. Have at least one pump which drives cleaning solvent through and over the gun, and a basin which permits containment of the cleaning solvent.

c. Have all covers and other surfaces that are exposed to gaseous or liquid VOC-solvent be impervious to both gaseous and liquid VOC-solvent

.

2. Specific Requirements For Two Types Of Cleaning Machines.

a. Automatic Gun Cleaning Machine:

(1) Shall be self-covering or enclosing when not loading or unloading.

(2) The machine shall have a self-closing cover or other self-enclosing feature which in the cover's closed position allows no gaps exceeding 1/8 inch (3 mm) between the cover and the cabinet.

(3) The machine shall be designed and maintained to prevent operation of its mechanical cleaning feature(s) unless it is completely covered or enclosed so that there are no gaps exceeding 1/8 inch (3 mm) between the cover and the cabinet.

b. Non-Automatic Remote Reservoir Gun Cleaning Machine.

(1) The cleaning machine shall be designed such that cleaning solvent drains from the sink/workspace quickly and completely into a remote reservoir when the workspace is not in use.

(2) The reservoir shall have the ability to contain VOC vapors and shall not have a cumulative total opening, including the drain opening(s), allowing VOC-escape to the atmosphere exceeding two square inches in area.

(3) Machine designs are allowed in which the base of the sink/workspace functions as the reservoir's top surface, as long the fit/seal between sink base and reservoir container allows the reservoir to meet the opening limits of two square inches in area maximum.

J. Storage and Disposal of VOC and VOC-Containing Material:

1. The Permittee shall store all VOC-containing materials, including but not limited to, waste coatings, waste solvents and their residues, and rags in closed containers.

2. The Permittee shall ensure that each container has a legible label identifying the container’s contents.

3. The Permittee shall ensure that a container shall be kept closed except when contents are added or removed.

4. The Permittee shall ensure that the disposal of waste or surplus VOC-containing materials shall be done in a manner that inhibits VOC evaporation, such as having these materials hauled off site in sealed containers.

K. Training: Note: The Permittee should fully train all individuals before they are allowed to operate any surface coating equipment. Training shall include, at a minimum, proper application techniques, cleaning procedures, and equipment setup and adjustment, as well as record keeping, VOC containment, and VOC disposal requirements. Refresher training shall be given at least annually.

III. Record keeping Requirements

The Permittee shall maintain and keep the following records. If the Permittee is a student, in classes at an accredited school which teaches vehicle refinishing, then the Permittee is exempt from the following record keeping requirements of this Permit.

A. Responsibility For Products In Use: The Permittee shall maintain and keep written records and sufficient documentation in the facility which give the name or code number of each VOC-containing product and its VOC content as received. VOC content shall be expressed in pounds of VOC per gallon (or grams/liter), less water and non-precursors, excepting waterborne cleaners, which shall include the water.

1. Examples of What To Include: All coating components as received from the supplier, before any in-house blending, such as coating base and tint base for topcoats, midcoats, primers, specialty coatings, sealers, and strippable booth coating; other coating components such as hardeners, catalysts, reducers, promoters, inhibitors and other coating additives; and stripper, wash-thinner, lacquer thinner, gun cleaning solvent, surface prep cleaners, and other cleaners, including waterborne cleaners which contain some VOC.

2. Sufficient Documentation: Any combination of the following may be used to meet the record requirements, as long as all VOC-containing refinishing products are accounted for:

   a. An up-to-date hardcopy (in writing) list prepared for that facility.

   b. Current MSDS showing the VOC content.

   c. Purchase documentation that gives VOC content.

   d. Current, dated manufacturers publications such as charts or lists which show VOC content, with the products used in the facility highlighted or otherwise clearly marked.

B. **Documentation Of Purchases:** The Permittee shall maintain purchase records showing the volume of each VOC-containing refinishing-related product purchased for the current and the previous year. Actual invoices and receipts showing the volume of the material purchased will suffice in place of ledger-style records.

C. **Records Retention:** All records and reports required by this Permit shall be retained for five years and shall be made available to the Control Officer upon request.

MARICOPA COUNTY REQUIREMENTS
Permits for New Sources and Modifications to Existing Sources (Rule 241)

IV. **Best Available Control Technology (BACT) Required:** The Permittee shall apply BACT for each pollutant emitted which exceeds any of the threshold limits set forth in any one of the following criteria:

A. Any new stationary source which emits more than 150 lbs/day or 25 tons/year of volatile organic compounds, nitrogen oxides, sulfur dioxide, or particulate matter, more than 85 lbs/day or 15 tons/year of PM10; or more than 550 lbs/day or 100 tons/year of carbon monoxide.

B. Any modified stationary source if the modification causes an increase in emissions on any single day of more than 150 lbs/day or 25 tons/year of volatile organic compounds, nitrogen oxides, sulfur dioxide, or particulate matter, more than 85 lbs/day or 15 tons/year of PM10; or more than 550 lbs/day or 100 tons/year of carbon monoxide. BACT is only required for the sources or group of sources being modified.

V. **Reasonably Available Control Technology (RACT) Required:** The Permittee shall apply RACT for each pollutant emitted from any new or modified stationary source which emits or causes an increase in emissions of up to 150 lbs/day or 25 tons/yr of volatile organic compounds or particulate matter; up to 85 lbs/day or 15 tons/yr of PM10; or up to 550 lbs/day or 100 tons/yr of carbon monoxide.

MARICOPA COUNTY REQUIREMENTS FOR
DUST CONTROL (Rule 310)

VI. DEFINITIONS:

BULK MATERIAL - Any material, including but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, and dry concrete.

BULK MATERIAL HANDLING, STORAGE, AND/OR TRANSPORTING OPERATION - The use of equipment, haul trucks, and/or motor vehicles, such as but not limited to, the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials, which are capable of producing fugitive dust at an industrial, institutional, commercial, governmental, construction, and/or demolition site.

CARRY-OUT/TRACKOUT - Any and all bulk materials that adhere to and agglomerate on the exterior surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen onto a paved public roadway.

CONTROL MEASURE - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust. Control measures include but are not limited to:

Curbing.
Paving.
Pre-wetting.
Applying dust suppressants.
Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization.
Limiting, restricting, phasing and/or rerouting motor vehicle access.
Reducing vehicle speeds and/or number of vehicle trips.
Limiting use of off-road vehicles on open areas and vacant lots.
Utilizing work practices and/or structural provisions to prevent wind and water erosion onto paved public roadways.
Appropriately using dust control implements.
Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved public roadway to control carry-out and trackout.
Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls, and tailgates.
Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage.

DISTURBED SURFACE AREA - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust. For the purpose of these conditions, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 2 and/or Section 3 of these conditions, as applicable.

DUST CONTROL IMPLEMENT - A tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emissions.

DUST CONTROL PLAN - A written plan describing all control measures to be implemented for any dust generating operation and/or any earthmoving operation.

DUST GENERATING OPERATION - Any activity capable of generating fugitive dust, including but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, material handling, storage

and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of these conditions, routine landscape maintenance and/or playing on a ballfield shall not be considered a dust generating operation. However, routine landscape maintenance shall not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.

DUST SUPPRESSANT - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the U.S. Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

EARTHMOVING OPERATION - The use of any equipment for an activity which may generate fugitive dust, such as but not limited to, cutting and filling, grading, leveling, excavating, trenching, loading or unloading of bulk materials, demolishing, blasting, drilling, adding to or removing bulk materials from open storage piles, back filling, soil mulching, landfill operations, or weed abatement by discing or blading.

FREEBOARD - The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.

FUGITIVE DUST - The particulate matter, which is not collected by a capture system, which is entrained in the ambient air, and which is caused from human and/or natural activities, such as but not limited to, movement of soil, vehicles, equipment, blasting, and wind. For the purpose of these conditions, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of Maricopa County Air Pollution Control Regulations.

GRAVEL PAD - A layer of washed gravel, rock, or crushed rock which is at least one inch or larger in diameter, maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site.

GRIZZLY - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.

HAUL TRUCK - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.

INTERMITTENT SOURCE - A fugitive dust generating operation and/or activity that lasts for a duration of less than six consecutive minutes.

MOTOR VEHICLE - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments,

such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

NORMAL FARM CULTURAL PRACTICE - All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.

OFF-ROAD VEHICLE - Any self-propelled conveyance specifically designed for off-road use, including but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.

OPEN AREAS AND VACANT LOTS - For the purpose of these conditions, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.

An unsubdivided or undeveloped tract of land adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.

A subdivided residential, industrial, institutional, governmental, or commercial lot, which contains no approved or permitted buildings or structures of a temporary or permanent nature.

A partially developed residential, industrial, institutional, governmental, or commercial lot.

PUBLIC ROADWAYS - Any roadways that are open to public travel.

SILT - Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.

TRACKOUT CONTROL DEVICE - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved roadway, that controls or prevents vehicular trackout.

UNPAVED HAUL/ACCESS ROAD - Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.

UNPAVED PARKING LOT - Any area larger than 5,000 square feet that is not covered by asphalt, recycled asphalt, asphaltic concrete, concrete, or concrete pavement and that is used for parking or storing motor vehicles.

UNPAVED ROAD - Any road or equipment path that is not covered by asphalt, recycled asphalt, asphaltic concrete, concrete, or concrete pavement. For the purpose of these conditions, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

WIND-BLOWN DUST - Visible emissions from any disturbed surface area which are generated by wind action alone.

WIND GUST - The maximum instantaneous wind speed as measured from the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument located at the site being checked.

WORK SITE - Any property upon which any dust generating operations and/or earthmoving operations occur.

2. OPERATIONAL LIMITATIONS AND STANDARDS

A. OPACITY LIMITATION FOR FUGITIVE DUST SOURCES: The owner and/or operator of a source engaging in operations and/or activities that cause fugitive dust emissions shall not allow such emissions to exceed 20% opacity, as determined by the techniques described in Section 3A of these conditions or by any other applicable opacity limitation imposed by these conditions.

1. No opacity limitation shall apply when the average wind speed is greater than 25 miles per hour, provided that all control measures contained in the source's approved Dust Control Plan remain in effect.

2. No opacity limitation shall apply when wind gusts exceed 25 miles per hour (See Section 4C of these conditions for a description of wind gust determination). If the owner and/or operator of a source chooses to be exempt from the opacity limitation because of wind gusts that exceed 25 miles per hour, then such owner and/or operator must comply with all of the following requirements:

a. A High Wind Dust Control Plan must be submitted to and approved by the Control Officer with any and all permit applications that involve dust generating operations. However, a stationary source and/or a Title V source may submit, for the Control Officer's approval, a High Wind Dust Control Plan separately from a permit application.

(1) The High Wind Dust Control Plan must meet the requirements of Section VI.E of this Attachment and must be approved, disapproved, or conditionally approved by the Control Officer in accordance with the criteria used to approve, disapprove, or conditionally approve a permit. Recommended control measures to be applied during wind gusts that exceed 25 miles per hour and to be described in a High Wind Dust Control Plan are listed in Table 2 of this rule.

(2) If implementing any high wind dust control measure(s) is impossible, due to technical and/or safety reasons, then the owner and/or operator shall explain in the High Wind Dust Control Plan why such implementation is impossible

and shall identify alternate control measures, if technically possible, in the High Wind Dust Control Plan.

(3) Regardless of whether an approved High Wind Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all requirements of these conditions at all times. In addition, the owner and/or operator of a dust generating operation with an approved High Wind Dust Control Plan is still subject to all of the requirements of these conditions, even if such owner and/or operator of a dust generating operation is complying with the approved High Wind Dust Control Plan.

B. CONTROL MEASURES REQUIRED

The owner and/or operator of a source shall implement control measures before, after, and while conducting any dust generating operation, including during temporary inactive periods (i.e., after work hours, weekends, and holidays). For the purpose of these conditions, any control measure that is implemented must meet the applicable standards described in Section 2 and/or in Section 3 of these conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in these conditions. Implementing one or more control measures described in Section 2C (Work Practices) of these conditions and/or described in an approved Dust Control Plan shall be considered compliance with this section of these conditions for such dust generating operations. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all requirements of these conditions at all times. In addition, the owner and/or operator of a dust generating operation with an approved Dust Control Plan is still subject to all of the requirements of these conditions, even if such owner and/or operator of a dust generating operation is complying with the approved Dust Control Plan.

C. WORK PRACTICES

When engaged in the following specific activities, the owner and/or operator of a source shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Table 1 of these conditions. Such work practices shall be implemented to meet the standards described in Section 2 and/or Section 3 of these conditions, as applicable.

1. Bulk Material Hauling Off-Site Onto Paved Public Roadways:

a. Load all haul trucks such that the freeboard is not less than three inches

b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s)

c. Cover all haul trucks with a tarp or other suitable closure

d. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover cargo compartment.

2. Bulk Material Hauling On-Site Within The Boundaries Of The Work Site:

When crossing a public roadway, upon which the public is allowed to travel while construction is underway:

a. Load all haul trucks such that the freeboard is not less than three inches

b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s)

c. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site.

3. Spillage, Carry-Out, And/Or Trackout:

a. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site at all entrances to a paved public roadway:

(1) From all work sites five acres or larger.

(2) From all work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.

b. Cleanup spillage, carry-out, and/or trackout on the following time schedule:

(1) Immediately, when spillage, carry-out, and/or trackout extends a cumulative distance of 50 linear feet or more; or

(2) At the end of the work day, when spillage, carry-out, and/or trackout are other than the spillage, carry-out, and/or trackout described above, in subsection C.3.b.(1) of these conditions.

4. Erosion-Caused Deposition Of Bulk Materials Onto Paved Surfaces:

Prevent erosion-caused deposition of bulk materials or other materials onto any adjacent paved roadway or paved parking lot. In the event that such deposits are impossible to prevent, the following work practices shall be complied with and a Dust Control Plan, that is designed according to subsection 4A of these conditions shall be submitted to the Control Officer within five working days upon notice by the Control Officer.

a. Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and

b. Dispose of deposits in such a manner so as not to cause another source of fugitive dust.

5. Unpaved Haul/Access Roads: If any permanently or semi-permanently unpaved haul/access roads are longer than 100 feet, then:

a. Implement control measures, as described in Table 1 of these conditions, before engaging in the use of or in the maintenance of any such unpaved haul/access roads; or

b. Limit vehicular trips to no more than 20 per day and limit vehicular speeds to no more than 15 miles per hour.

6. Open Storage Piles: For the purpose of these conditions, an open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers 150 square feet or more of ground surface. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96a or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%.

a. During stacking, loading, and unloading operations, apply water; and

b. When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:

(1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or

(2) Apply water to maintain a soil moisture content at a minimum of 12%,as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined

by ASTM Method 1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or

(3) Meet the stabilization observations described in Section 3B of these conditions; or

(4) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If this control measure is used, then the permittee must also implement either subsection (b)(2) or subsection (b)(3) above.

D. MONITORING AND RECORDKEEPING

1. Opacity observations for unpaved parking lots and unpaved haul/access roads

a. Opacity observations, in accordance with Appendix C of Maricopa County Air Pollution Control Rules and Regulations shall be performed once per day by a certified observer, at the highest dust-producing locations of the site for five consecutive days of operation. The observer shall log the location, time and result of each observation. The locations where the readings will be performed will be clearly identified in the dust control plan, which shall be revised as necessary to keep it current. If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks.

b. Observer shall move from location to location as quickly as is reasonable when conducting opacity observations. If the opacity exceeds 20%, then opacity observations will be required once per day for a continuous five day period to verify the efficacy of increased control measures implemented to reduce dust formation. If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks. Observer shall log the location, time and result of each observation.

c. If a control method is changed or frequency of application of an existing control method is decreased, then observations will be required once per day at all locations specified in the dust control plan, for a continuous five day period to ensure that the 20% opacity limit is not exceeded. If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks. Observer shall log the location, time and result of each observation.

2. Stability observations for disturbed inactive sites

a. The Permittee shall observe inactive areas for evidence of disturbance on a daily basis. The location and nature of any disturbances on inactive areas shall be recorded. If any inactive areas are found to be disturbed (as described in Section 1 of these conditions) then the Permitee shall perform one of the stability tests below in Section 3B(2).

b. Stabilization observations for visible fugitive dust emissions from any inactive disturbed surface area (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive, or on an open area and vacant lot) shall be conducted, to determine compliance with these conditions, in accordance with at least one of the techniques described below:

(1) A visible crust, as determined by Appendix C of Maricopa County Air Pollution Control Rules and Regulations, (Test Methods For Stabilization Visible Crust Determination) (The Drop Ball/Steel Ball Test); or

(2) A threshold friction velocity (TFV), for disturbed surface areas corrected for non-erodible elements, of 100 cm/second or higher, as determined by Appendix C of Maricopa County Air Pollution Control Rules, (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure); or

(3) Flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%, as determined by Appendix C of Maricopa County Air Pollution Control Rules (Test Methods For Stabilization-Determination Of Flat Vegetative Cover); or

(4) Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%, as determined by Appendix C of Maricopa County Air Pollution Control Rules (Test Methods For Stabilization-Determination Of Standing Vegetative Cover); or

(5) Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements, as determined by Appendix C of

Maricopa County Air Pollution Control Rules, (Test Methods For Stabilization-Determination Of Standing Vegetative Cover); or

(6) A percent cover of more than 10% for non-erodible elements, as determined by Appendix C of Maricopa County Air Pollution Control Rules, (Test Methods For Stabilization-Rock Test Method).

c. Records of the results daily observations of inactive sites, and any stability tests conducted shall be logged. The log shall include the location, time, date, and results of any observations and tests conducted.

3. Water or dust suppressants applied

Permitee shall record, on a daily basis the date, location and frequency of watering and/or application of dust suppressants. If certain conditions exist such that application of water or dust suppressants is not necessary (such as wet weather conditions), then it shall be noted in the records.

4. Complaint Records

A record of all complaints to the site shall be kept, including the date, nature of the complaint, investigations conducted, and control measures implemented to remedy the dust problem. Investigations in response to dust complaints shall include an opacity observation for a five-day period as stated in subsection 3A(1). If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks.

E. OTHER DUST CONTROL PLAN

1. The owner and/or operator of a source shall submit to the Control Officer a Dust Control Plan with any and all permit applications that involve dust generating operations. The Dust Control Plan shall describe all high emission points where opacity readings shall be taken, and control measures to be implemented before, after, and while conducting any dust generating operation, including during temporary inactive periods (i.e., after work hours, weekends, and holidays).

2. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a source is still subject to all requirements of these conditions at all times. In addition, the owner and/or operator of a source with an approved Dust Control Plan is still subject to all of the requirements of these conditions, even if such owner and/or operator is complying with the approved Dust Control Plan.

3. At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan.

4. A Dust Control Plan shall contain, at a minimum, all of the following information:

   a. Names, address(es), and phone numbers of person(s) responsible for the preparation, submittal, and implementation of the Dust Control Plan and responsible for the dust generating operation.

   b. A plot plan of each site, which describes:

      (1) The total area of land surface to be disturbed and the total area of the entire project site (in acres).

      (2) The dust generating operation(s) and/or activity(ies) to be carried-out on the site.

      (3) The actual and potential sources of fugitive dust emissions on the site.

      (4) Location of parking, staging, or storage areas for equipment, supplies, and/or trailers.

   c. Control measures or combination thereof to be applied to all fugitive dust sources, before, after, and while conducting any dust generating operations, including during temporary inactive periods (i.e., after work hours, weekends, holidays), and during wind gusts that exceed 25 miles per hour. (A description of the control measure(s) to be applied during wind gusts that exceed 25 miles per hour must be included in a High Wind Dust Control Plan. See subsection 2A(2)(a) of these conditions.)

      (1) At least one primary control measure and one contingency control measure must be identified for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan. See Table 1 of these conditions for a list of recommended control measures.

      (2) Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all

requirements of these conditions at all times. In addition, the owner and/or operator of a dust generating operation with an approved Dust Control Plan is still subject to all of the requirements of these conditions, even if such owner and/or operator of a dust generating operation is complying with the approved Dust Control Plan.

d. Dust suppressants to be applied, including product specifications or label instructions for approved usage:

(1) Method, frequency, and intensity of application.

(2) Type, number, and capacity of application equipment.

(3) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

(4) Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access points join paved public roadways.

5. Posting: The owner and/or operator of a source shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times.

F. PROJECT INFORMATION SIGN (for sites 5 acres or larger):

The owner and/or operator of a source shall erect a project information sign at the main entrance, that is visible to the public, of all active construction sites that are five acres or larger. Such sign shall be a minimum of four feet long by four feet wide, have a white background, have black block lettering which is at least four inches high, and shall contain the following information:

1. Project name

2. Name and phone number of person(s) responsible for conducting the project

3. Text stating: "Complaints? Call Maricopa County Environmental Services Department (602) 506-6616."

G. WIND GUST DETERMINATION

A wind gust shall be determined by a peak one-minute wind speed average, from the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated and maintained according to the manufacturer's specifications and that is located at the site being checked.

H. RECORDS RETENTION

Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least six months following the termination of the dust generating operation, but no less than one year.

I. EARTH MOVING ACTIVITIES

All earth moving and or dust generating operations which may disturb more than 0.1 acre (4,356 square feet) or more of surface area in Maricopa County must obtain an earth moving permit prior to commencing such operations (Rule 200 Sec. 305 Maricopa County Air Pollution Control Rules). Permittees are not required to obtain an earth moving permit provided that the earth moving activities are associated with the crushing and screening activities covered under this general permit. Dust control measures must be applied as required by this general permit.

TABLE 1 (Control measures for wind speed less than 25 mph)

SOURCE TYPE AND CONTROL MEASURE OPTIONS	
Vehicle Use In Open Areas And Vacant Lots:	
1A	Restrict trespass by installing signs.
2A	Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.
Unpaved Parking Lots:	
1B	Apply paving.
2B	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 3 of these conditions.
3B	Apply a suitable dust suppressant, in compliance with Section 3C of these conditions.
Unpaved Haul/Access Roads:	
1C	Limit vehicle speed to 15 miles per hour or less, in addition to one or more of the control measures described in 2C, 3C, 4C, and 5C below.
2C	Apply water, so as to comply with Section 3 of these conditions, so that the surface is visibly moist and the 20% opacity standard, described in Section 2 of these conditions, is met.
3C	Apply paving.
4C	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 3 of these conditions.
5C	Apply a suitable dust suppressant, in compliance with Section 3 of these conditions.

Disturbed Surface Areas:

Pre-Activity:

1D Pre-water site to the depth of cuts.

2D Phase work to reduce the amount of disturbed surface areas at any one time.

During Active Operations:

3D Apply water or other suitable dust suppressant, in compliance with Section 3 of these conditions.

4D Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method 1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.

5D Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind blown material leaving a site. If constructing fences or wind barriers, must also implement 3D or 4D above.

Temporary Stabilization (Required During Periods Of Inactivity, Including After Work Hours, Weekends, And Holidays):

6D Apply a suitable dust suppressant, in compliance with Section 3 of these conditions.

7D Establish vegetative ground cover in sufficient quantity, in compliance with Section 3 of these conditions.

8D Restrict vehicular access to the area, in addition to either of the control measures described in 6D and 7D above.

Permanent Stabilization (Required Within 8 Months Of Ceasing Active Operations):

9D Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby native conditions, in compliance with Section 3 of these conditions.

10D Apply paving, gravel, or a suitable dust suppressant, in compliance with Section 3 of these conditions.

11D Establish vegetative ground cover in sufficient quantity, in compliance with Section 3 of these conditions.

Open Areas And Vacant Lots:

1E Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby native conditions.

2E Apply paving, gravel, or a suitable dust suppressant, in compliance with Section 3 of these conditions.

3E Establish vegetative ground cover in sufficient quantity, in compliance with Section 3 of these conditions.

Bulk Material Handling Operations: (The control measures listed below are required work practices, per Section 9 of these conditions.)

1F Meet the stabilization observations described in Section 3 of these conditions.

2F Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.

3F Apply water during stacking, loading, and unloading operations, in compliance with Section 3 of these conditions.

4F Apply water during loading and unloading operations to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method 1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.

5F Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing 5F, must also implement 1F or 4F above.

Bulk Material Hauling/Transporting:

On-Site Hauling/Transporting:

1G Load all haul trucks such that the freeboard is not less than 3 inches. (This control measure is a required work practice, per Section 2C of these conditions, when crossing a public roadway upon which the public is allowed to travel while construction is underway.)

2G Limit vehicular speeds to 15 miles per hour or less while traveling on the work site.

3G Apply water to the top of the load such that the 20% opacity standard, as described in Section 2 of these conditions, is not exceeded, or cover haul trucks with a tarp or other suitable closure.

Off-Site Hauling/Transporting:

5G Cover haul trucks with a tarp or other suitable closure (This control measure is a required work practice, per Section 9 of these conditions.); and

6G Load all haul trucks such that the freeboard is not less than 3 inches. (This control measure is a required work practice, per Section 2C of these conditions.)

Cleanup Of Spillage, Carry Out, And/Or Trackout:

1H Operate a street sweeper or wet broom with sufficient water, if applicable, at the speed recommended by the manufacturer and at the frequency(ies) described in subsection 2C(3) of these conditions.

2H Manually sweep-up deposits.

Trackout:

1J Install a grizzly or wheel wash system at all access points.

2J At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep.

3J Apply paving starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

Weed Abatement By Discing Or Blading:	
1K	Apply paving, gravel, water, or a suitable dust suppressant, in compliance with Section 3 of these conditions.
2K	Establish vegetative ground cover in sufficient quantity, in compliance with Section 3 of these conditions.

The following is a list of recommended control measures for high wind conditions. Table 2 is not exhaustive and is to be used as a guide only, in selecting the most effective control measures for each fugitive dust source type. Control measures in [brackets] are to be applied only to sources outside the Maricopa County non-attainment area.

One or more control measure, as applicable/necessary, should be chosen for each fugitive dust source type and should be implemented when wind gusts exceed 25 miles per hour. In addition, such control measures should be described in a High Wind Dust Control Plan. By using the associated test method(s), the control measures in Table 2 must be implemented to comply with the standard(s) described in Section 2 (Opacity Limitation For Fugitive Dust Sources) and/or in Section 3 (Stabilization Requirements For Fugitive Dust Sources) of these conditions. If a control measure that is not on this list is chosen, then such control measure must be implemented/applied to comply with the standards in Section 2 and/or in Section 3 of these conditions, according to the test methods described in Appendix C of Maricopa County Air Pollution Control Rules and Regulations.

TABLE 2 (Control measures for wind speed greater than 25 mph)

SOURCE TYPE AND CONTROL MEASURE OPTIONS	
Active Operations:	
1A	Cease all active operations/Stop all vehicular traffic.
2A	Apply water or other suitable dust suppressant twice [once] per hour, in compliance with Section 3C of these conditions.
3A	Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method 1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.
4A	Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind blown material leaving a site. If implementing 4A, must also implement 2A or 3A above.
5A	Cover all haul trucks with a tarp or other suitable closure.

Temporary Inactive Operations/Periods (After Work Hours, Weekends, Holidays):	
1B	Uniformly apply and maintain surface gravel or dust suppressants, in compliance with Section 3 of these conditions.
2B	Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day.
3B	Apply water on open storage piles twice [once] per hour, in compliance with Section 3 of these conditions.
4B	Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.
5B	Utilize any combination of the control measures described in 1B, 2B, 3B, and 4B above, such that, in total, these control measures apply to all disturbed surface areas.

Adopted 06/16/99

APPENDIX C

INDEX

1. VISUAL DETERMINATION OF OPACITY OF EMISSIONS FROM UNPAVED ROADS, UNPAVED HAUL/ACCESS ROADS, AND UNPAVED PARKING LOTS ON ACTIVE WORK SITES (RE: PLUMES)

See Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of this appendix.

2. TEST METHODS FOR STABILIZATION

2.1 Opacity Observations For Unpaved Roads Other Than Unpaved Roads/Unpaved Haul/Access Roads On Active Work Sites. Conduct opacity observations in accordance with the combined methods, EPA Reference Method 9 (40 CFR Part 60, Appendix A), Method 203(A) and Method 203(C), which is Section 3 of this appendix, with opacity readings taken at five-second observation intervals and two consecutive readings per plume, beginning with the first reading at zero seconds. Conduct visible opacity tests only on dry unpaved surfaces (i.e., when the surface is not damp to the touch) and on days when average wind speeds do not exceed 15 miles per hour.

2.2 Stabilization Limitations For Open Areas And Vacant Lots. The test methods described in Section 2.3 through Section 2.7 of this appendix shall be used to determine whether an open area or a vacant lot has a stabilized surface. Should a disturbed open area or vacant lot contain more than one type of disturbance, soil, vegetation, or other characteristics, which are visibly distinguishable, test each representative surface separately for stability, in an area that represents a random portion of the overall conditions of the site, according to the appropriate test methods in Section 2.3 through Section 2.7 of this appendix, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.

2.3 Visible Crust Determination.

2.3.1 Where a visible crust exists, drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass of 16.33 grams from a distance of 30 centimeters (one foot) directly above (at a 90 degree angle perpendicular to) the soil surface. If blow sand is present, clear the blowsand from the surfaces on which the visible crust test method is conducted. Blowsand is defined as thin deposits of loose uncombined grains covering less than 50% of a vacant lot which have not originated from the representative vacant lot surface being tested. If material covers a visible crust which is not blowsand, apply the test method in Section 2.4 of this appendix to the loose material to determine whether the surface is stabilized.

2.3.2 A sufficient crust is defined under the following conditions: once a ball has been dropped according to subsection 2.3.1. of this appendix, the ball does not sink into the surface, so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface upon which it fell has not been pulverized, so that loose grains are visible.

2.3.3 Drop the ball three times within a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site. The survey area shall be considered to have passed the Visible Crust Determination Test if at least two out of the three times that the ball was dropped, the results met the criteria in subsection 2.3.2 of this appendix. Select at least two other survey areas that represent a random portion of the overall disturbed conditions of the site, and repeat this procedure. If the results meet the criteria of subsection 2.3.2 of this appendix for all of the survey areas tested, then the site shall be considered to have passed the Visible Crust Determination Test and shall be considered sufficiently crusted.

2.3.4 At any given site, the existence of a sufficient crust covering one portion of the site may not represent the existence or protectiveness of a crust on another portion of the site. Repeat the visible crust test as often as necessary on each random portion of the overall conditions of the site for an accurate assessment.

2.4 Determination Of Threshold Friction Velocity (TFV). For disturbed surface areas that are not crusted or vegetated, determine threshold friction velocity (TFV) according to the following sieving field procedure (based on a 1952 laboratory procedure published by W. S. Chepil).

2.4.1 Obtain and stack a set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm, and 0.25 mm. or obtain and stack a set of standard/commonly available sieves and follow a test method that the Control Officer and the Administrator of the Environmental Protection Agency (EPA) determine to be equivalent to the test method described in this subsection of this appendix. Place the sieves in order according to size openings, beginning with the largest size opening at the top. Place a collector pan underneath the bottom (0.25 mm) sieve. Collect a sample of loose surface material from an area at least 30 cm by 30 cm in size to a depth of approximately 1 cm using a brush and dustpan or other similar device. Only collect soil samples from dry surfaces (i.e. when the surface is not damp to the touch). Remove any

rocks larger than 1 cm in diameter from the sample. Pour the sample into the top sieve (4 mm opening) and cover the sieve/collector pan unit with a lid. Minimize escape of particles into the air when transferring surface soil into the sieve/collector pan unit. Move the covered sieve/collector pan unit by hand using a broad, circular arm motion in the horizontal plane. Complete twenty circular arm movements, ten clockwise and ten counterclockwise, at a speed just necessary to achieve some relative horizontal motion between the sieves and the particles. Remove the lid from the sieve/collector pan unit and disassemble each sieve separately beginning with the largest sieve. As each sieve is removed, examine it for loose particles. If loose particles have not been sifted to the finest sieve through which they can pass, reassemble and cover the sieve/collector pan unit and gently rotate it an additional ten times. After disassembling the sieve/collector pan unit, slightly tilt and gently tap each sieve and the collector pan so that material aligns along one side. In doing so, minimize escape of particles into the air. Line up the sieves and collector pan in a row and visibly inspect the relative quantities of catch in order to determine which sieve (or whether the collector pan) contains the greatest volume of material. If a visual determination of relative volumes of catch among sieves is difficult, use a graduated cylinder to measure the volume. Estimate TFV for the sieve catch with the greatest volume using Table 1 of this appendix, which provides a correlation between sieve opening size and TFV.

Table 1. Determination Of Threshold Friction Velocity

Tyler Sieve No	Opening (mm)	TFV (cm/s)
5	4	>100
9	2	100
16	1	76
32	0.5	58
60	0.25	43
Collector Pan	--	30

2.4.2 Collect at least three soil samples which represent random portions of the overall conditions of the site, repeat the above TFV test method for each sample and average the resulting TFVs together to determine the TFV uncorrected for non-erodible elements. Non-erodible elements are distinct elements, in the random portion of the overall conditions of the site, that are larger than 1 cm in diameter, remain firmly in place during a wind episode, and inhibit soil loss by consuming part of the shear stress of the wind. Non-erodible elements include stones and bulk surface material but do not include flat or standing vegetation. For surfaces with non-erodible elements, determine corrections to the TFV by identifying the fraction of the survey area, as viewed from directly overhead, that is occupied by non-erodible elements using the following

procedure. Select a survey area of 1 meter by 1 meter that represents a random portion of the overall conditions of the site. Where many non-erodible elements lie within the survey area, separate the non-erodible elements into groups according to size. For each group, calculate the overhead area for the non-erodible elements according to the following equations:

(Average length) x (Average width) = Average Dimensions. Eq. 1

(Average Dimensions) x (Number of Elements) = Overhead Area. Eq. 2

Overhead Area Of Group 1 + Overhead Area Of Group 2 (etc.) = Total Overhead Area. Eq. 3

Total Overhead Area/2 = Total Frontal Area. Eq. 4

(Total Frontal Area/Survey Area) x 100 = Percent Cover Of Non-Erodible Elements. Eq. 5

Note: Ensure consistent units of measurement (e.g. square meters or square inches when calculating percent cover).

Repeat this procedure on an additional two distinct survey areas that represent a random portion of the overall conditions of the site and average the results. Use Table 2 of this appendix to identify the correction factor for the percent cover of non-erodible elements. Multiply the TFV by the corresponding correction factor to calculate the TFV corrected for non-erodible elements.

Table 2. Correction Factors For Threshold Friction Velocity

Percent Cover of Non-Erodible Elements	Correction Factor
$10 %	5
$5% and <10%	3
<5% and $1%	2
< 1 %	None

2.5 Determination Of Flat Vegetative Cover. Flat vegetation includes attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind. Flat vegetation which is dead but firmly attached shall be considered equally protective as live vegetation. Stones or other aggregate larger than 1 centimeter in diameter shall be considered protective cover in the course of conducting the line transect method. Where flat vegetation exists, conduct the following line transect method.

2.5.1 Line Transect Test Method. Stretch a 100 foot measuring tape across a survey area that represents a random portion of the overall conditions of the site. Firmly anchor both ends of the measuring tape into the surface using a tool such as a screwdriver, with the tape stretched taut and close to the soil surface. If vegetation exists in regular rows, place the tape diagonally (at approximately a 45E angle) away from a parallel

or perpendicular position to the vegetated rows. Pinpoint an area the size of a 3/32 inch diameter brazing rod or wooden dowel centered above each 1 foot interval mark along one edge of the tape. Count the number of times that flat vegetation lies directly underneath the pinpointed area at 1 foot intervals. Consistently observe the underlying surface from a 90E angle directly above each pinpoint on one side of the tape. Do not count the underlying surface as vegetated if any portion of the pinpoint extends beyond the edge of the vegetation underneath in any direction. If clumps of vegetation or vegetative debris lie underneath the pinpointed area, count the surface as vegetated, unless bare soil is visible directly below the pinpointed area. When 100 observations have been made, add together the number of times a surface was counted as vegetated. This total represents the percent of flat vegetation cover (e.g., if 35 positive counts were made, then vegetation cover is 35%). If the a survey area, that represents a random portion of the overall conditions of the site is too small for 100 observations, make as many observations as possible. Then multiply the count of vegetated surface areas by the appropriate conversion factor to obtain percent cover. For example, if vegetation was counted 20 times within a total of 50 observations, divide 20 by 50 and multiply by 100 to obtain a flat vegetation cover of 40%.

2.5.2 Conduct the line transect test method, as described in subsection 2.5.1 of this appendix, an additional two times on areas that represent a random portion of the overall conditions of the site and average results.

2.6 Determination Of Standing Vegetative Cover. Standing vegetation includes vegetation that is attached (rooted) with a predominant vertical orientation. Standing vegetation which is dead but firmly rooted shall be considered equally protective as live vegetation. Conduct the following standing vegetation test method to determine if 30% cover or more exists. If the resulting percent cover is less than 30% but equal to or greater than 10%, then conduct the test in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this appendix in order to determine if the site is stabilized, such that the standing vegetation cover is equal to or greater than 10%, where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second.

2.6.1 For standing vegetation that consists of large, separate vegetative structures (e.g., shrubs and sagebrush), select a survey area that represents a random portion of the overall conditions of the site that is the shape of a square with sides equal to at least 10 times the average height of the vegetative structures. For smaller standing vegetation, select a survey area of three feet by three feet.

2.6.2 Count the number of standing vegetative structures within the survey area. Count vegetation which grows in clumps as a single unit. Where different types of vegetation exist and/or vegetation of different height and width exists, separate the vegetative structures with similar dimensions into groups. Count the number of vegetative structures in each group within the survey area. Select an individual structure within each group that represents the average height

and width of the vegetation in the group. If the structure is dense (e.g., when looking at it vertically from base to top there is little or zero open air space within its perimeter), calculate and record its frontal silhouette area, according to Equation 6 of this appendix. Also, use Equation 6 of this appendix to estimate the average height and width of the vegetation if the survey area is larger than three square feet. Otherwise, use the procedure in subsection 2.6.3 of this appendix to calculate the frontal silhouette area. Then calculate the percent cover of standing vegetation according to Equations 7, 8, and 9 of this appendix.

(Average Height) x (Average Width) = Frontal Silhouette Area. Eq. 6

(Frontal Silhouette Area Of Individual Vegetative Structure) x (Number Of Vegetation Per Group) = Frontal Silhouette Area Of Group. Eq. 7

Frontal Silhouette Area Of Group 1 + Frontal Silhouette Area Of Group 2 (etc.) = Total Frontal Silhouette Area. Eq. 8

(Total Frontal Silhouette Area/Survey Area) x 100 = Percent Cover Of Standing Vegetation. Eq. 9

[(Number Of Circled Gridlines Within The Outlined Area Counted That Are Not Covered By Vegetation/Total Number Of Gridline Intersections Within The Outlined area) x 100] = Percent Open Space. Eq. 10

100 - Percent Open Space = Percent Vegetative Density. Eq. 11

Percent Vegetative Density/100 = Vegetative Density. Eq. 12

[Max. Height x Max. Width] x [Vegetative Density/0.4]$^{0.5}$ = Frontal Silhouette Area. Eq. 13

Note: Ensure consistent units of measurement (e.g. square meters or square inches when calculating percent cover).

2.6.3 Vegetative Density Factor. Cut a single, representative piece of vegetation (or consolidated vegetative structure) to within 1 cm of surface soil. Using a white paper grid or transparent grid over white paper, lay the vegetation flat on top of the grid (but do not apply pressure to flatten the structure). Grid boxes of 1 inch or 1/2 inch squares are sufficient for most vegetation when conducting this procedure. Using a marker or pencil, outline the shape of the vegetation along its outer perimeter, according to Figure B, C, or D of this appendix, as appropriate. (Note: Figure C differs from Figure D primarily in that the width of vegetation in Figure C is narrow at its base and gradually broadens to its tallest height. In Figure D, the width of the vegetation generally becomes narrower from its midpoint to its tallest height.) Remove the vegetation, count and record the total number of gridline intersections within the outlined area, but do not count gridline intersections that connect with the outlined shape. There must be at least 10 gridline intersections within the outlined area and preferably more than 20, otherwise, use smaller grid boxes. Draw small circles (no greater than a 3/32 inch diameter) at each gridline intersection counted within the outlined area. Replace the vegetation on the grid within its outlined shape. From a distance of approximately 2 feet directly above the grid, observe each circled gridline intersection. Count and record the number of circled gridline intersections that are not covered by any piece of the vegetation. To calculate percent vegetative density, use

Equations 10 and 11 of this appendix. If percent vegetative density is equal to or greater than 30, use an equation (one of the equations-Equations 16, 17, or 18 of this appendix) that matches the outline used to trace the vegetation (Figure B, C, or D) to calculate its frontal silhouette area. If percent vegetative density is less than 30, use Equations 12 and 13 of this appendix to calculate the frontal silhouette area.

2.7 Rock Test Method. The Rock Test Method, which is similar to Section 2.3 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) of this appendix, examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than 1 centimeter (cm) in diameter that remain firmly in place even on windy days. Typically, non-erodible elements include rocks, stones, glass fragments, and hard packed clumps of soil lying on or embedded in the surface. Vegetation does not count as a non-erodible element in this method. The purpose of this test method is to estimate the percent cover of non-erodible elements on a given surface to see whether such elements take up enough space to offer protection against windblown dust. For simplification, the following test method refers to all non-erodible elements as "rocks".

2.7.1 Select a 1 meter by 1 meter survey area that represents the general rock distribution on the surface. (A 1 meter by 1 meter area is slightly greater than a 3 foot by 3 foot area.) Mark-off the survey area by tracing a straight, visible line in the dirt along the edge of a measuring tape or by placing short ropes, yard sticks, or other straight objects in a square around the survey area.

2.7.2 Without moving any of the rocks or other elements, examine the survey area. Since rocks >3/8 inch (1 cm) in diameter are of interest, measure the diameter of some of the smaller rocks to a get a sense for which rocks need to be considered.

2.7.3 Mentally group the rocks >3/8 inch 1 (cm) diameter lying in the survey area into small, medium, and large size categories. Of, if the rocks are all approximately the same size, simply select a rock of average size and typical shape. Without removing any of the rocks from the ground, count the number of rocks in the survey area in each group and write down the resulting number.

2.7.4 Without removing rocks, select one or two average-size rocks in each group and measure the length and width. Use either metric units or standard units. Using a calculator, multiply the length times the width of the rocks to get the average dimensions of the rocks in each group. Write down the results for each rock group.

2.7.5 For each rock group, multiply the average dimensions (length times width) by the number of rocks counted in the group. Add the results from each rock group to get the total rock area within the survey area.

2.7.6 Divide the total rock area, calculated in subsection 2.7.5 of this appendix, by two (to get frontal area). Divide the resulting number by the size of the survey area (make sure the units of measurement match), and multiply by 100 for percent rock cover. For example, the total rock area is 1,400 square centimeters, divide 1,400 by 2 to get 700. Divide 700 by 10,000 (the survey area is 1 meter by 1 meter, which is 100 centimeters by 100 centimeters or 10,000 centimeters) and multiply by 100. The result is 7% rock cover. If rock measurements are made in inches, convert the survey area from meters to inches (1 inch = 2.54 centimeters).

2.7.7 Select and mark-off two additional survey areas and repeat the procedures described in subsection 2.7.1 through subsection 2.7.6 of this appendix. Make sure the additional survey areas also represent the general rock distribution on the site. Average the percent cover results from all three survey areas to estimate the average percent of rock cover.

2.7.8 If the average rock cover is >10%, the surface is stable. If the average rock cover is <10%, follow the procedures in subsection 2.7.9 of this appendix.

2.7.9 If the average rock cover is <10%, the surface may or may not be stable. Follow the procedures in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this rule and use the results from the rock test method as a correction (i.e., multiplication) factor. If the rock cover is at least 1%, such rock cover helps to limit windblown dust. However, depending on the soil's ability to release fine dust particles into the air, the percent rock cover may or may not be sufficient enough to stabilize the surface. It is also possible that the soil itself has a high enough TFV to be stable without even accounting for rock cover.

2.7.10 After completing the procedures described in subsection 2.7.9 of this appendix, use Table 2 of this appendix to identify the appropriate correction factor to the TFV, depending on the percent rock cover. Multiply the correction factor by the TFV value for a final TFV estimate that is corrected for non-erodible elements.

3. VISUAL DETERMINATION OF OPACITY OF EMISSIONS FROM SOURCES FOR TIME-AVERAGED REGULATIONS

3.1 Applicability. This method is applicable for the determination of the opacity of emissions from sources of visible emissions for time-averaged regulations. A time-averaged regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.

3.2 Principle. The opacity of emissions from sources of visible emissions is determined visually by an observer qualified according to the procedures of Section 3.4 of this appendix.

3.3 Procedures. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions.

3.3.1 Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.

3.3.2 Procedures For Fugitive Dust Emissions. These procedures are applicable for the determination of the opacity of fugitive dust emissions by a qualified observer. The qualified observer should do the following:

a. Position. Stand at a position at least 5 meters from the fugitive dust source in order to provide a clear view of the emissions with the sun oriented in the 140E sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.

b. Field Records. Record the name of the site, fugitive dust source type (i.e., pile, material handling (i.e., transfer, loading, sorting)), method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the fugitive dust source. Also, record the time, estimated distance to the fugitive dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the fugitive dust source, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.

c. Observations. Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of sight. For roads, parking lots, and storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.

d. Recording Observations. Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 15-second period.

e. Data Reduction For Time-Averaged Regulations. For each set of 12 consecutive readings, calculate the appropriate average opacity. Sets must consist of consecutive observations, however, readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.

3.4 Qualification and Testing.

3.4.1 Certification Requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5% increments to 25 different black plumes and 25 different white plumes, with an error not to exceed 15% opacity on any one reading and an average error not to exceed 7.5% opacity in each category. Candidates shall be tested according to the procedures described in subsection 3.4.2 of this appendix. Any smoke generator used pursuant to subsection 3.4.2 of this appendix shall be equipped with a smoke meter which meets the requirements of subsection 3.4.3 of this appendix. Certification tests that do not meet the requirements of subsections 3.4.2 and 3.4.3 of this appendix are not valid. The certification shall be valid for a period of 6 months, and after each 6-month period the qualification procedures must be repeated by an observer in order to retain certification.

3.4.2 Certification Procedure. The certification test consists of showing the candidate a complete run of 50 plumes, 25 black plumes and 25 white plumes, generated by a smoke generator. Plumes shall be presented in random order within each set of 25 black and 25 white plumes. The candidate assigns an opacity value to each plume and records the observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator, during which candidates are shown black and white plumes of known opacity.

3.4.3 Smoke Generator Specifications. Any smoke generator used for the purpose of subsection 3.4.2 of this appendix shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity, based upon a path length equal to the stack exit diameter on a full 0% to 100% chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table A of this appendix. The smoke meter shall be calibrated as prescribed in subsection 3.4.3(a) of this appendix prior to conducting each smoke reading test. At the completion of each test, the zero and span drift shall be checked, and if the drift exceeds $\pm$1% opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table A of this appendix. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry, including the chart recorder or output meter, or every 6 months, whichever occurs first.

a. Calibration. The smoke meter is calibrated after allowing a minimum of 30 minutes warm-up by alternately producing simulated opacity of 0% and 100%. When stable response at 0% or 100% is noted, the smoke meter is adjusted to produce an output of 0% or 100%, as appropriate. This calibration shall be repeated until stable 0% and 100% readings are produced without adjustment. Simulated 0% and 100% opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

b. Smoke Meter Evaluation. The smoke meter design and performance are to be evaluated as follows:

(1) Light Source. Verify, from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within ±5% of the nominal rated voltage.

(2) Spectral Response Of Photocell. Verify from manufacturer's data that the photocell has a photopic response (i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table A of this appendix).

(3) Angle Of View. Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15 degrees. Calculate the total angle of view as follows:

Total Angle Of View = $2\tan^{-1}$ d/2L

Where:

d = The photocell diameter + the diameter of the limiting aperture; and

L = The distance from the photocell to the limiting aperture.

The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters, this is normally an orifice plate.

(4) Angle Of Projection. Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15E. Calculate the total angle of projection as follows:

Total Angle Of Projection = $2\tan^{-1}$ d/2L

Where:

d= The sum of the length of the lamp filament + the diameter of the limiting aperture; and

L = The distance from the lamp to the limiting aperture.

(5) Calibration Error. Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter, according to subsection 3.4.3(a) of this appendix, and then inserting a series of three neutral-density filters of nominal opacity of 20%, 50%, and 75% in the smoke meter path length. Use filters calibrated within ±2%. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum opacity error on any one reading shall be ±3%.

(6) Zero And Span Drift. Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.

(7) Response Time. Determine the response time by producing the series of five simulated 0% and 100% opacity values and observing the time required to reach stable response. Opacity values of 0% and 100% may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

Table A. Smoke Meter Design And Performance Specifications

Parameter	Specification
a. Light Source	Incandescent lamp operated at nominal rated voltage.
b. Spectral response of photocell	Photopic (daylight spectral response of the human eye).
c. Angle of view	15 degrees maximum total angle.
d. Angle of projection	15 degrees maximum total angle.
e. Calibration error	±3% opacity, maximum.
f. Zero and span drift	±1% opacity, 30 minutes.
g. Response time	#5 seconds.

MARICOPA COUNTY REQUIREMENTS FOR GASOLINE DISPENSING OPERATIONS (Rule 353)

1. Operational Requirements and Limitations

The Permittee shall ensure that authorized activities are conducted in accordance with the following conditions:

A. **Throughput.** The Permittee shall not allow the facility's *gasoline* throughputs to exceed any of the limits in the following table:

Controls	Maximum Monthly Limits	Rolling Twelve Month Limits
Uncontrolled (Non-resale)	10,000 gallons	120,000 gallons

Stage I Vapor Recovery	160,000 gallons	1,920,000 gallons
Stage I and II Vapor Recovery	740,000 gallons	8,880,000 gallons

The Rolling Twelve Month Limit shall include every period of twelve consecutive calendar months.

B. Vapor Loss Control Equipment Requirements:

All vapor loss control equipment listed below shall be installed as required, operated as recommended by the manufacturer, and maintained *Leak Free*, *Vapor Tight* and in good working order.

1) Stage I Vapor Recovery System: The source shall maintain and operate an *Approved Stage I Vapor Recovery System* installed as required by Rule 353 of the Maricopa County Air Pollution Control Regulations. No person shall transfer or permit the transfer of *Gasoline* from any *Delivery Vessel* into any stationary *Dispensing Tank* located above or below ground with a capacity of more than 250 gallons (946 liters) unless the following conditions are met:

a) Submerged Fill Pipe: Stationary *Dispensing Tanks* shall be equipped with a permanent Submerged Fill Pipe such that the end of the fill pipe is totally submerged when the liquid level is six inches (15 cm) from the bottom of the tank. For side-filled tanks, the end of the discharge pipe shall be totally submerged when the liquid level is no more than 18 inches (46 cm) from the bottom of the tank. Fill tubes shall be maintained and operated so that there is no obstruction of vapor passage from the tank to the *Delivery Vessel*.

b) Vapor Recovery System: The displaced *Gasoline Vapors* or gases shall be handled by an *Approved Stage I Vapor Recovery System*. Both the owner/operator of a vessel delivering *Gasoline* to a fuel *Dispensing Tank* equipped with vapor recovery, and the owner/operator of such a tank shall have the responsibility to assure that proper vapor recovery equipment is connected during every such delivery.

c) Leakage Limits: Delivery operations are to be *Leak Free* and *Vapor Tight* and the *Gasoline* drainage from delivery hose disconnection shall not exceed 10 milliliters (1/3 ounce) per disconnect.

2) Stage II Vapor Recovery. If the facility is required to install a Stage II Vapor Recovery System pursuant to A.R.S. Title 41, Chapter 15, the Stage II Vapor Recovery System permit shall be obtained from the State of Arizona prior to operation of the facility.

C. **Temporary Halting or Reducing of Activity**. The Permittee shall halt or reduce activities, if necessary, in order to maintain compliance with conditions of this General Permit.

D. **Test Certification Decal on *Delivery Vessels.*** The owner/operator of a non-exempt fuel *Dispensing Tank* shall refuse delivery of *Gasoline* from a *Delivery Vessel* which does not bear a current pressure test certification decal issued by the Control Officer.

2. Record keeping Requirements

A. **Throughput Record keeping.** The Permittee shall maintain records that show the monthly quantity of all Gasoline received by the facility, as well as each rolling 12-month total (i.e., last complete month plus the previous 11 months). The Permittee shall maintain records of emission inventory, excess emissions, and malfunction reports submitted to the Department.

B. **Maintenance Record keeping.** The Permittee shall maintain records of any maintenance of the Stage I Vapor Recovery System.

C. **Records Retention.** All records and reports required by this Permit shall be retained for the five years and shall be made available to the Control Officer upon request.

MARICOPA COUNTY REQUIREMENTS FOR SURFACE COATING OPERATIONS (RULE 336)

1. Controls:

A. The Permittee shall conduct all spray coating activities in a paint booth equipped with exhaust filters which are certified by the manufacturer and accepted by the Control Officer as having a minimum over spray removal efficiency of at least 92% for similar types of applications. The Permittee shall install and maintain the exhaust filters in accordance with the manufacturer's recommendations, with no gaps or visible openings.

B. The Permittee shall conduct all spray coating operations inside of the painting enclosure.

C. The exhaust from all paint booths shall be directed vertically up into the atmosphere.

2. Material Limitations: Solvents used to clean coating application equipment are limited to a VOC-vapor pressure less than 35 mm Hg at 20E C (68E F) unless the solvent being used is the same as the one used in the coating, and it is applied without utilizing spray equipment.

3. Record Keeping:

A. The Permittee shall maintain a current list of VOC containing materials, including their formulations as applied, make-up solvents, and any other VOC containing materials used for surface coating operations at the facility, stating the VOC content of each in either pounds per gallon, grams per liter, or percent VOC by weight along with the specific gravity or density of the material.

B. The Permittee shall keep the following records:

1. If material usage is less than 2 gallons per day the Permittee shall keep all purchase receipts/invoices for VOC-containing material for the most recent 12 months.

2. If material usage exceeds 2 gallons per day the Permittee shall keep monthly usage records for each coating as received and as applied. The permittee shall keep a hardcopy of the VOC vapor pressure at 20E C (68E F) of all solvents used to clean spray guns, hoses, reservoirs, and any other type of coating equipment. The hardcopy documentation shall be in one of the following forms:

a) current manufacturer's technical data sheet;

b) current manufacturer's material safety data sheet (MSDS);

c) actual test results using methods approved by the control officer;

d) a letter signed by an official or lab manager of the product's supplier.

C. The Permittee shall keep a log demonstrating that all training requirements of these Permit Conditions are being met.

4. Training: The Permittee shall fully train all individuals before they are allowed to operate any surface coating equipment. Training shall include, at a minimum, proper application techniques, cleaning procedures, and equipment setup and adjustment as well as record keeping, VOC containment and VOC disposal requirements. Refresher training shall be given at least annually.

5. Other:

1) Spray Equipment Cleanup: The Permittee shall not use materials containing VOC's in the cleanup of the spray equipment used in surface coating operations unless:

the equipment is disassembled and cleaned in:

a) a container which remains closed at all times, except when the application equipment is transferred into or out of the container, or

b) a commercially sold gun cleaning machine is used.

2) The used cleaning compounds are collected in a container which is closed when not in use and the solvent is disposed of in a manner which does not allow it to evaporate into the atmosphere.

a) VOC Containment and Disposal: The Permittee shall take all reasonable measures to keep VOC'S from evaporating into the atmosphere including, but not limited to:

1) All materials from which VOC'S can evaporate, including coatings, fresh solvent, used solvent, waste solvent and solvent soaked rags and residues shall be stored in closed containers when not in use. Such containers one gallon and larger shall be legibly labeled with their contents. VOC containing materials shall be disposed of in closed containers.

2) All containers and mixing tanks containing VOC'S shall be leak free and shall be kept covered except when the materials are being transferred or when the containers are being cleaned.

6. If on any given day the Permittee exceeds 15 lbs/day of VOC emissions, the source will be considered a Large Source as defined by Rule 336 §243 of Maricopa County Air Pollution Control Regulations. Within 60 days of the exceedance the Permittee shall submit a permit revision in accordance with Rule 220 §400 of Maricopa County Air Pollution Control Regulations.

MARICOPA COUNTY REQUIREMENTS FOR PORTABLE SOURCES (Rule 200 Sec. 410)

1. An owner of a portable source which requires a permit under Rule 200 of MCAPCR shall obtain the permit prior to renting or leasing said portable source. This permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of the portable source in compliance with these permit conditions and any violations thereof.

2. A portable source may be transported from one location to another within or across Maricopa County boundaries provided the owner or operator of such portable source notifies the Director and any Control Officer who has jurisdiction over the geographic area that includes the new location of the portable source by certified mail at least ten working days before the portable source is transported to the new location. The notification required under this rule shall include:

a. A description of the portable source to be transported including the Maricopa County permit number or the State of Arizona permit number for such portable source;
b. A description of the present location;
c. A description of the location to which the portable source is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
d. The date on which the portable source is to be moved;
e. The date on which operation of the portable source will begin at the new location; and
f. The duration of operation at the new location.

3. An owner or operator of a portable source with a current State of Arizona permit that moves such portable source into Maricopa County shall notify the Control Officer that such portable source is being transported to a new location and shall include in such notification a copy of the State of Arizona permit and a copy of any conditions imposed by the State of Arizona permit. The source shall be subject to all regulatory requirements of these rules.

4. Pursuant to Rule 280, Section 305 of MCAPCR, before relocating a portable source, the Permittee must first submit a notification and a portable source relocation inspection fee: The owner or operator of a portable source filing a notice of relocation pursuant to Rule 200, Section 410 MCAPCR, at the time the notification is submitted, shall pay an inspection fee of $480.00 to the Control Officer.

MARICOPA COUNTY REQUIREMENTS FOR ROCK CRUSHING OPERATIONS (Rule 316)

1. Compliance with Opacity Requirements: The Permittee shall not discharge or cause to be discharged into the ambient air:

A. Stack emissions exceeding 7% opacity or containing more than 0.02 grains per dry standard cubic foot of particulate matter.

B. Fugitive dust emissions from any transfer point on a conveyer system exceeding 7% opacity.

C. Fugitive dust emissions exceeding 15% opacity from any crusher.
D. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source excluding truck dumping directly into any screening operation, feed hopper or crusher.

E. Fugitive dust emissions exceeding 20 percent opacity from any other affected operation.

Opacity observations to determine compliance with the above standards shall be performed in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A except for intermittent visible emissions which shall require 12 consecutive readings at 15 second intervals.

If any non-compliant visible emissions (not including water vapor) are detected or reported, the Permittee shall determine the cause and/or the source of emissions. The Permittee shall then take immediate corrective action(s) and if necessary, shut down the applicable equipment. The Permittee shall have visible emissions quantified by a certified Visible Emissions Evaluator within three business days to determine compliance. If the evaluator determines that emissions exceed the above specified opacities, plant personnel will institute repairs or changes necessary to ensure compliance prior to resuming operations.

2. Operations & Maintenance (O&M) Plan: The Permittee shall submit an O&M Plan for any emission control system and monitoring devices required by this permit.

3. Control Device Parameters: The Permittee shall not operate emission control systems covered by this Permit unless the system has a properly functioning monitoring device installed and operating at the parameter levels specified in an approved Operations & Maintenance Plan.

4. Record Keeping: The Permittee shall keep accurate daily records of:

A. hours of operation;

B. throughput of raw materials processed in the plant in tons/day;

C. amount of each raw material delivered to the plant in tons/day;

D. amount of water used to control fugitive dust emissions from the process equipment.

E. The Permittee shall keep accurate records of the parameters specified by the approved O&M Plan. These records shall include:

1) dates of inspection;

2) dates of service or maintenance;

3) records of maintenance or corrective actions performed;

4) records of key parameters specified in the written O&M Plan;

5) dates, times, and causes of all control device failures and downtime.

The Permittee shall maintain all records onsite for review during a compliance inspection. The Permittee shall also keep all of the visible emission evaluation records.

MARICOPA COUNTY REQUIREMENTS FOR SOLVENT CLEANING OPERATIONS (Rule 331)

1. OPERATING CONDITIONS:

A. The following solvent handling requirements apply to all solvent cleaning operations.

1) All cleaning-solvent, including solvent soaked materials, shall be kept in closed leak free containers that are opened only when adding or removing material.

a) Rags used for wipe cleaning shall be stored in closed containers when not in use.

b) Each container shall be clearly labeled with its contents.

2) If any cleaning-solvent escapes from a container:

a) Wipe up or otherwise remove immediately if in accessible areas.

b) For areas where access is not feasible during normal production, remove as soon as reasonably possible.

3) Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

4) VOC Containment and Disposal: The Permittee shall take all reasonable measures to keep VOC'S from evaporating into the atmosphere including, but not limited to:

a) All materials from which VOC'S can evaporate, including coatings, adhesives, fresh solvent, used solvent, waste solvent and solvent soaked rags and residues shall be stored in closed containers when not in use. Such containers one gallon and larger shall be legibly labeled with their contents. VOC containing materials shall be disposed of in closed containers.

b) All containers and mixing tanks containing VOC'S shall be leak free and shall be kept covered except when the materials are being transferred or when the containers are being cleaned.

B. The following requirements apply to all solvent cleaning machines subject to Rule 331 of Maricopa County Air Pollution Control Rules and Regulations.

1) Any solvent cleaner to which Rule 331 applies shall have a leak free container which is impervious to the solvent VOC containing liquid.

2) Comfort fans shall not be used near cleaning machines. The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface (20 m^3/min./m^2), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation, to meet health and safety requirements.

3) Cover: Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine.

4) Do not place porous or absorbent materials in or on a cleaning machine. This includes, but is not limited to, cloth, leather, wood and rope. No object with a sealed wood handle, including a brush, is allowed after 1999.

5) Spraying: If using a cleaning-solvent spray system,

   a) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).

   b) Pressure at the orifice from which the solvent emerges shall not exceed 10 psig and shall not cause liquid solvent to splash outside of the solvent container.

   c) In an in-line cleaning machine, a shower-type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.

6) No person shall cause agitation of a cleaning-solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds 15 seconds.

7) Minimize solvent carry-out by the following measures:

   a) Rack parts to facilitate drainage.

   b) For manual loading/unloading, tip out any pools of solvent on the cleaned parts before removal.

   c) Drain parts for 15 seconds after cleaning or until dripping stops, whichever is later.

8) Signage Requirements: Any person who uses cleaning-solvent, other than Low-VOC Cleaner, in any solvent cleaning machine (degreaser) or dip tank shall provide on the machine, or within 3¼ feet (1 meter) of the machine, a permanent, conspicuous label or placard which includes, at a minimum, each of the following applicable instructions, or its equivalent:

a) "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)

b) "Drain parts until they can be removed without dripping."

c) "Do not blow off parts before they have stopped dripping."

d) "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."

e) "Don't leave cloth or any absorbent materials in or on this tank."

f) For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____," listing a person or place where the instructions are available.

9) The permittee shall use only a batch cold cleaner either with or without a resevoir. The solvent temperature as used, shall be less than 120 F.

a) If a cold solvent cleaner with remote resevoir is used, then the batch cleaning machine shall be equipped with the following:

(1) A sink-like work area or basin which is sloped sufficiently towards the drain so as to prevent pooling of cleaning-solvent.

(2) A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning-solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5 square inches (100 cm^2).

(3) Solvent Return: Provide a means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine.

b) If a cold cleaner with internal (non-remote) resevoir is used, the following additional conditions apply:

1) Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning-solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser); and

2) Have an impervious cover which when closed prevents cleaning-solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine.

a) A cover shall be fitted so that in its closed position the cover is between the cleaning-solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.

b) A cover is not required when an ECS is used in accordance with subsection IV of the Appendix within this rule.

3) In the absence of additional applicable freeboard standards, freeboard height shall be not less than 6 inches (15.2 cm); and

4) The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level which conforms to the applicable freeboard requirements.

5) No surface of any freeboard required by this rule shall have an opening or duct through which VOC can escape to the atmosphere, except as controlled by an ECS, or as required by OSHA.

C. Non-Vapor Cleaning and Degreasing

All cleaning solvents, except Low-VOC Cleaners, used in non-boiling cleaning machines shall comply with the following:

1) Use a cleaning-solvent having a total VOC vapor pressure at 68EF (20EC) not exceeding the limits in Table 1:

TABLE 1

Limit: Maximum Total VOC Vapor Pressure		Time Period Limit is in Effect
2 millimeters of mercury column	----------‰	From November 1, 1999 through October 31, 2001
1 millimeter of mercury column	----------‰	From November 1, 2001 and thereafter.

2) Sealed System: Use a Sealed System that is an Air-tight or Airless Cleaning System which is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:

a) Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle; and

b) Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use; and

c) Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out.

2. RECORD KEEPING:

A. The Permittee shall maintain a current list of VOC containing materials, including their formulations as applied, make-up solvents, and any other VOC containing materials used for all operations at the facility, stating the VOC content of each in either pounds per gallon or grams per liter. The vapor pressure limits of cleaning solvents shall be documented by a manufacturer's technical data sheet, manufacturer's safety data sheet or actual test results.

B. Usage Records:

1) Monthly: Records of the amount of cleaning-solvent used shall be updated by the end of month for the previous month. Show the type and amount of each make-up and all other cleaning-solvent to which this rule is applicable.

2) Annually:

a) Certain Concentrates: Use of concentrate that is used only in the formulation of Low VOC Cleaner shall be updated at least annually.

b) Low-VOC Cleaner: An owner or operator need not keep a record of a cleaning substance that is made by diluting a concentrate with water or non-precursor compound(s) to a level that qualifies as a Low VOC Cleaner if records of the concentrate usage are kept in accordance with this rule.

3) Grouping By VOC Content: For purposes of recording usage, an operator may give cleaning-solvents of similar VOC content a single group-name, distinct from any product names in the group. The total usage of all the products in that group are then recorded under just one name. (In such a case, the operator must also keep a separate list that identifies the product names of the particular solvents included under the group name). To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 10th of a pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

3. COMPLIANCE DETERMINATION AND TEST METHODS

If testing is required by the Control Officer to determine compliance with these conditions, then the appropriate test methods in Rule 331 Section 502 should be used to determine compliance.

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GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

ATTACHMENT "D"
CONDITIONS FOR OPERATION INSIDE PIMA COUNTY

As per A.R.S. §49-480.A, the board of supervisors may adopt a program which shall include provisions for administration, inspection and enforcement of General Permits issued pursuant to A.R.S. §49-426, subsection H. The Permittee shall abide by all permit conditions of this General Permit and the following rules while operating in Pima County.

I. CRUSHING AND SCREENING FACILITY REQUIREMENTS [P.C.C. §§ 17.16.370]

A. Applicability

The provisions of this Section are applicable to the following affected facilities: primary rock crushers, secondary rock crushers, tertiary rock crushers, screens, conveyors and conveyor transfer points, stackers, reclaimers, and all gravel or crushed stone processing plants and rock storage piles.

B. Particulate Matter Emissions

1. Permittee shall not allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any gravel or crushed stone processing plant in total quantities in excess of the amounts calculated by one of the following equations:

   a. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

   $$E = 3.59\ P^{0.62}$$

   where:

   E = the maximum allowable particulate emissions rate in pounds-mass per hour.

   P = the process weight rate in tons-mass per hour.

   b. For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 17.31\ P^{0.16}$

where "E" and "P" are defined as above

c. The actual values shall be calculated from the applicable equations and rounded off to two decimal places.

2. The opacity of any plume or effluent shall not be greater than the opacity limit for "Other Sources" in TABLE 4 of Condition IV.A on Page 96 of this Attachment.

II. AUXILIARY LIME SILOS

[P.C.C. §§ 17.16.430.A.1]

Particulate Matter Emissions

A. Permittee shall not allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any lime silo in total quantities in excess of the amounts calculated by one of the following equations:

1. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 3.59\ P^{0.62}$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

2. For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 17.31\ P^{0.16}$

where "E" and "P" are defined as above

3. The actual values shall be calculated from the applicable equations and rounded off to two decimal places.

B. The opacity of any plume or effluent shall not be greater than the opacity limit for "Other Sources" in TABLE 4 of Condition IV.A on Page 96 of this Attachment.

III. NON-POINT SOURCE REQUIREMENTS

A. Fugitive Dust Producing Activities [P.C.C. §§ 17.16.060]

A permittee whose permit specifically allows fugitive dust producing operations or activities is responsible for controlling windblown dust, dust from haul roads, and dust emitted from land clearing, earthmoving, demolition, trenching, blasting, road construction, mining, racing event, and other activities, as applicable.

1. Until the area becomes permanently stabilized by paving, landscaping or otherwise, dust emissions shall be controlled by applying adequate amounts of water, chemical stabilizer, or other effective dust suppressant.

2. The Permittee shall not leave land in such a state that fugitive dust emissions (including windblown dust or dust caused by vehicular traffic on the area) would violate this permit. (Ord. 1994-83 § 50, 1994; Ord. 1993-128 § 4, 1993; Ord. 1979-93 (part), 1979)

B. Fugitive Dust Emissions Standards for Motor Vehicle Operation [P.C.C. §§ 17.16.070]

No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. Vacant Lots and Open Spaces [P.C.C. §§ 17.16.080]

1. Dust emissions from the construction, use, alteration, repair, demolition, clearing, leveling, or excavation of any vacant lot, parking area, housing plot, building site, sales lot, playground, livestock feedlot, or other open area, other than those solely used for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes, shall be minimized by intermittently applying water or other effective dust suppressants to the area, paving, detouring, barring access, or other equivalently effective controls.

2. No vacant lot, housing plot, building site, parking area, sales lot, playground, livestock feedlot, or other open area - other than those used solely for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes - shall be left in such a state after construction, alteration, clearing, leveling, or excavation that naturally induced wind blowing over the area causes visible emissions of airborne dust to diffuse beyond the property lines within which the emissions become airborne. Dust emissions must be permanently suppressed by landscaping, covering with gravel or vegetation, paving, or applying equivalently effective controls.

3. This section shall not apply when wind speeds exceed twenty-five miles per hour (as recorded by the National Weather Service or as estimated by an enforcement officer using the Beaufort Scale of Wind Speed Equivalents) unless control measures have not been taken or were not commensurate with the size or scope of the sources of dust. (Ord. 1993-128 4, 1993; Ord. 1987-175 22, 1987: Ord. 1979-93 (part), 1979)

D. Roads and Streets [P.C.C. §§ 17.16.090]

1. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.

2. Dust emissions from the construction phase of a new road must be minimized by applying the same measures specified in subsection A of this section.

3. No new unpaved private driveway shall be constructed unless the road will not be used by more vehicular traffic than that associated with a one - or two-family private residence, and the road will not be adjacent to any recreational, institutional, educational, or retail sales facility.

4. No new unpaved service road or unpaved haul road shall be constructed unless dust will be suppressed after construction by intermittently watering, limiting access, or applying chemical dust suppressants to the road, in such a way that visible dust emissions caused by vehicular traffic on the road do not violate section 17.16.050.

5. No new road other than a private driveway shall be constructed unless the paving specifications are those defined by, or equivalent to those of, the planning department and/or highway department of the jurisdictional agency.

6. The surfacing of roadways with asbestos tailings is prohibited.

7. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits. (Ord. 1995-87 § 44. 1995; Ord. 1993-128 § 4, 1993; Ord. 1987-175 § 20, 1987: Ord. 1979-93 (part), 1979)

E. Particulate Materials [P.C.C. §§ 17.16.100]

1. No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

2. Dust emissions from construction activity shall be effectively controlled by applying adequate amounts of water or other equivalently effective dust controls.

3. Dust emissions from the transportation of materials shall be effectively controlled by covering stock loads in open-bodied trucks, limiting vehicular speeds, or other equivalently effective controls.

4. Emissions from a sandblasting or other abrasive blasting operation shall be effectively controlled by applying water to suppress visible emissions (wet blasting), enclosing the operation, or use of other equivalently effective controls. (Ord. 1995-87 § 45. 1995; Ord. 1994-83 § 51, 1994: Ord. 1993-128 § 4 (part), 1993; Ord. 1991-136 § 12; Ord. 1990-113 § 4, 1990; Ord. 1979-93 (part), 1979)

IV. OTHER SPECIFIC REQUIREMENTS

A. Opacity Limitations [P.C.C. §§ 17.16.040]

No person shall cause or permit the effluent from a single emission point, multiple emission point, or fugitive emissions source to have an average optical density equal to or greater than the opacity limiting standards specified in TABLE 4 at the end of this Condition, or as otherwise specified in this permit, subject to the following provisions:

1. Opacities (optical densities), as measured in accordance with Method 9, of an effluent shall be measured by a certified visible emissions evaluator with his natural eyes, approximately following the procedures which were used during his certification, or by an approved and precisely calibrated in-stack monitoring instrument.

2. A violation of an opacity standard shall be determined by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set unless otherwise noted herein. The measurements shall be made at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be as specified in TABLE 4. Sets need not be consecutive in time, and in no case shall two sets overlap. If the average opacity of the set of instantaneous measurements exceeds the maximum allowed by any rule, this shall constitute a violation.

3. The use of air or other gaseous diluents solely for the purpose of achieving compliance with an opacity standard is prohibited.

4. When the presence of uncombined water is the only reason for failure of a source to otherwise meet the requirements of this article, this article shall not apply. (Ord. 1993-128 § 4, 1993; Ord. 1979-93 (part), 1979)

TABLE 4: EMISSIONS-DISCHARGE OPACITY LIMITING STANDARDS

Type of Source	Instantaneous Opacity Measurements			Maximum Allowable Average Opacity, %
	Required No. (For a Set)	Excluded No. (Highest Values)	No. to Use For Averaging	
Cold Diesel Engines [1]	25	0	25	60
Loaded Diesel Engines [2]	26	1	25	60
Other Sources [3]	25	0	25	40

[1] Applicable to the first 10 consecutive minutes after starting up a diesel engine.

[2] Applicable to a diesel engine being accelerated under load.

[3] Any source not otherwise specifically covered within this table.

(Ord. 1993-128 4, 1993; Ord. 1979-93 (part), 1979)

B. Visibility Limiting Standard [P.C.C. §§ 17.16.030]

1. No person shall cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

2. Opacity of an emission from any non-point source shall not be greater than 40 percent measured in accordance with the Arizona Testing Manual, Reference Method 9.

3. Open fires permitted according to Chapter 17.12 are exempt from the requirements of this section.

4. No person shall cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.

   a. Sources required to obtain an air quality permit under ARS § 49-426, § 49-480 or Rule 17.12.470 may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this subsection.

   b. This subsection shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source.

   c. This subsection shall not apply to the generation of airborne particulate matter from undisturbed land. (Ord 1999-11 § 2 (part), Ord. 1995-87 § 39. 1995; Ord. 1994-83 § 49, 1994: Ord. 1993-128 § 4 (part), 1993; Ord. 1987-175 § 23, 1987: (Ord. 1979-93 (part), 1979)

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GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

ATTACHMENT "E"
CONDITIONS FOR OPERATION INSIDE PINAL COUNTY

I. CRUSHING AND SCREENING REQUIREMENTS

Particulate Matter Emissions

[Pinal Code §5-5-190.C]

A. Spray bar pollution controls shall be utilized in accordance with "EPA Control of Air Emissions from process operations in the Rock Crushing Industry" (EPA 340/1-79-002), "Wet Suppression Systems" (Jan. 1979), with placement of spray bars and nozzles as required to minimize air pollution in accordance with the provisions of this General Permit. Operation of a piece of process equipment while the associated spray bar(s) are not operating, at those emission points and times required under this permit, shall constitute a period of excess emissions.

B. At a minimum, unless emissions from a process step are otherwise controlled, process materials shall be kept sufficiently moist at every step in the process so as to suppress at least 90% of the emissions that would occur from processing dry material.

II. NON-POINT SOURCE REQUIREMENTS

A. Particulate Matter Emissions - Control of Fugitive Dust

[Currently federally enforceable pursuant to PGCAQCD Reg. 7-3-1.2 (3/31/75) and Reg. 7-3-2.1.C (3/31/75) approved as SIP elements at 43 FR 505531 (11/15/78)]

1. Permittee shall not cause, suffer, allow or permit a building or its appurtenances or open area to be used, constructed, repaired, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Dust and other types of particulates shall be kept to a minimum by such measures as wetting down, covering, landscaping, paving, treating or by other reasonable means.

2. Permittee shall not cause, suffer, allow or permit the repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent particulate matter from becoming airborne dust and other particulates shall be kept to a minimum by employing temporary paving, dust, palliatives, wetting down, detouring or by other reasonable means. Earth or other materials shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

3. Failure to control these "fugitive" emissions in a manner satisfactory to the Director of the Pinal County Air Quality Control District will result in a non-compliance status even though the other particulate emission limitations of this permit have been complied with.

B. Particulate Matter Emissions - Control Equipment and Procedures.

[Pinal Code §3-1-081, 4-2-040]

1. Fugitive particulate emissions from waste piles and ponds, open areas, roadways, alleys, pit open areas and haul roads that are owned or operated by the Permittee shall be controlled in accordance with Pinal Code §4-2-040, by taking reasonable precautions to control such emissions, specifically including sprinkling with a water truck as may be necessary to effect such reasonable control.

2. All trucks which are owned or operated by the Permittee to haul bulk particulate material on public roadways shall be securely covered whenever the load extends above the level of the top edge of the sides or the top edge of the tailgate of the vehicle bed, whichever is lower.

III. STANDARDS OF PERFORMANCE FOR SPRAY PAINTING OPERATIONS

Emission Standard - Use of Organic Solvents or Materials Containing Organic Solvents

[Currently federally enforceable pursuant to PGCAQCD Reg. 7-3-3.4, approved as a SIP element at 47 FR 15579 (4/12/82)] (Pinal Code §3-1-081)

A. Photochemically reactive solvent emission standard - product use and emission rate limitations

The Permittee shall not allow emissions of organic matter in excess of forty (40) pounds per day from any machine, equipment, incinerator, device or other article for employing, applying, evaporating or drying any photochemically reactive solvents, which photochemically reactive solvents shall include any solvent that exceeds the most restrictive of the applicable compound-specific percentage limitations set forth below or which includes an aggregate of more than twenty (20) percent of its total volume of a combination of the compounds set forth below:

1. A combination of hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones having an olefinic or cyclo-olefinic type of unsaturation, limited as a class to five percent (5%) by volume;

2. A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethyl benzene, limited as a class to eight percent (8%) by volume;

3. A combination of ethyl benzene, ketones having branched hydrocarbon structures, tri-chloro-ethylene or toluene, limited as a class to twenty percent (20%) by volume.

B. All organic solvents or materials containing organic solvents shall be labeled properly.

C. Compliance verification- non-instrumental emissions monitoring - photochemically reactive solvents

As a surrogate means to monitor emissions of organic materials, the Permittee shall maintain records reflecting total daily use of organic materials, namely solvents, and shall include specific identification of any photochemically reactive solvents used.

IV. STANDARDS OF PERFORMANCE FOR GASOLINE STORAGE VESSELS

A. Equipment Requirements

[Currently federally enforceable pursuant to PGCAQCD Reg. 7-3-3.1 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78).

Any stationary gasoline tank with a capacity of 250 gallons or more shall be equipped with either a submerged filling inlet or other vapor recovery or emission control system such that loss of vapor to the atmosphere during filling operations is minimized.

B. Operational Requirements [Pinal Regulation §7-3-3.1 (6/15/87)]

Fill tubes shall be used on gasoline storage vessels and the liquid level of the storage vessel shall not be allowed to drop below the bottom of the fill tube.

V. OTHER SPECIFIC REQUIREMENTS

A. Preservation of Ambient Air Standards

[Currently federally enforceable pursuant to PGCAQCD Reg. 7-1-1.3.C (6/16/90) approved as a SIP element at 47 FR 15579 (4/12/82)]

Notwithstanding any other emission limitation in this permit, no person shall knowingly allow any violation of the ambient air standards.

B. General Maintenance Obligation [Pinal Code §§3-1-081.E, 8-1-030.A]

At all times, including periods of start-up, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

C. Emergency and Excess Emission Reporting Provisions [Pinal Code §8-1-030]

To the extent that a Permittee is operating under an ATO issued by Pinal County, then in the event of an incident of excess emissions or emergency, the Permittee shall notify the District of such event within 24 hours or by the next business day, whichever is later. The Permittee shall notify the District at phone number (520) 868-6760, and shall provide a written report (Mail address - Pinal County Air Quality, P.O. Box 987, Florence, Arizona 85232; hand delivery address - Pinal County Air Quality, 31 N. Pinal St., Florence, Arizona) within three (3) working days of the beginning of such occurrence.

D. Compliance Verification - Non-Instrumental Particulate Emissions Monitoring

[Pinal Code §§3-1-081.A.4, 3-1-083]

1. Since the emissions authorized under this General Permit constitute a direct function of the material throughput at the source, the Permittee shall maintain daily records of:

   a. The volume of material produced, and the weight of material shipped;

   b. The number of loaded trucks shipped.

2. To verify effective control of fugitive particulate emissions, the Permittee shall maintain on-site a daily log of water truck operations. The log shall include:

   a. operation start/end times
   b. total hours of daily operation
   c. frequency of waters, volume of water applied, and
   d. information regarding rainfall in the preceding twenty-four hour period.

GENERAL AIR QUALITY CONTROL PERMIT
FOR CRUSHING AND SCREENING PLANTS

ATTACHMENT "F":
APPLICABLE REGULATIONS

REQUIREMENT SPECIFICALLY IDENTIFIED AS APPLICABLE

Compliance with the terms contained in this permit shall be deemed compliance with the following federally applicable requirements.

ARIZONA ADMINISTRATIVE CODE (A.A.C.) TITLE 18, CHAPTER 2

ARTICLE 6.	**EMISSION FROM EXISTING AND NEW NON POINT SOURCES**
R18-2-602	Unlawful Open Burning
R18-2-604.A,B	Open Areas, Dry Washes or Riverbeds
R18-2-605	Roadways and Streets
R18-2-606	Material Handling
R18-2-607	Storage Piles
R18-2-610	Evaluation of Non-point Source Emissions
ARTICLE 7.	**EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**
R18-2-702.B	General Provisions
R18-2-710	Standards of Performance for Existing Storage Vessels for Petroleum Liquids
R18-2-719.C,E,F,H,J	Standards of Performance for Existing Stationary Rotating Machinery
R18-2-722.B,D,F	Standards of Performance for Existing Nonferrous Metals Industry Sources
R18-2-726	Standards of Performance for Existing Sandblasting Operations
R18-2-727	Standards of Performance for Spray Painting Operations
R18-2-730	Standards of Performance for Unclassified Sources
ARTICLE 8.	**EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)**
R18-2-804	Roadway and Site Cleaning Machinery

CODE OF FEDERAL REGULATIONS 40 PART 60

SUBPART A	**GENERAL PROVISIONS**
40 CFR 60.11 (d)	Compliance With Standards and Maintenance Requirements.
SUBPART OOO	**STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS**
40 CFR 60.670.(e)	Applicability and Designation of Affected Facility
40 CFR 60.671	Definitions
40 CFR 60.672 (a),(b),(c)	Standard for Particulate Matter
40 CFR 60.674	Monitoring of Operations
40 CFR 60.676	Reporting and Record Keeping

MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS

REGULATION II	**PERMITS AND FEES**
Rule 200	Permit Requirements
Rule 220	Non-Title V Permit Provisions
Rule 241	Permits for New Sources and Modifications to Existing Sources
REGULATION III	**CONTROL OF AIR CONTAMINANTS**
Rule 310	Open Fugitive Dust Sources
Rule 312	Abrasive Blasting
Rule 316	Non-metallic Mineral Mining and Processing
Rule 331	Solvent Cleaning
Rule 336	Surface Coating Operations
Rule 345	Vehicle Refinishing
Rule 353	Transfer of Gasoline Into Stationary Storage Dispensing Tanks

PIMA COUNTY CODE

ARTICLE I	**GENERAL PROVISIONS**
17.16.030	Odor Limiting Standard

ARTICLE II	**VISIBLE EMISSIONS STANDARDS**
17.16.040	Standards and Applicability (Includes NESHAP)
ARTICLE III	**EMISSIONS FROM EXISTING AND NEW NONPOINT SOURCES**
17.16.060	Fugitive Dust Producing Activities
17.16.070	Fugitive Dust Emissions Standards for Motor Vehicle Operation
17.16.080	Vacant Lots and Open Spaces
17.16.090	Roads and Streets
17.16.100	Particulate Materials
ARTICLE IV	**NEW AND EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**
17.16.370	Standards of Performance for Gravel and Crushed Stone Processing Plants
17.16.430.A	Standards of Performance for Unclassified Sources

PINAL COUNTY CODE

CHAPTER 3 ARTICLE 1	**GENERAL PROVISIONS RELATING TO PERMITS AND PERMIT REVISIONS**
3-1-081	Permit Conditions
3-1-083	Compliance Provisions
CHAPTER 4 ARTICLE 2	**FUGITIVE DUST**
4-2-040	Standards
CHAPTER 5 ARTICLE 5	**GRAVEL OR CRUSHED STONE PROCESSING PLANTS**
5-5-190	Performance Standards
CHAPTER 8 ARTICLE 1	**VIOLATIONS**
8-1-030	Mitigating Factors In the Event of A Violation

PINAL COUNTY STATE IMPLEMENTATION PLAN

REGULATION 7-1-1	**GENERAL**
7-1-1.3.C	Air Pollution Prohibited
REGULATION 7-3-1	**EMISSION STANDARDS - PARTICULATES**
7-3-1.2	Fugitive Dust
REGULATION 7-3-2	**EMISSION STANDARDS - SULFUR DIOXIDE**
7-3-2.1.C	Emission Standards - Sulfur Dioxide
REGULATION 7-3-3	**EMISSION STANDARDS - ORGANIC COMPOUND EMISSIONS FROM STATIONARY SOURCES**
7-3-3.1	Storage of Volatile Organic Compounds
7-3-3.4	Organic Solvents: Volatile Organic Compounds